UNITED NATIONS EDUCATIONAL SCIENTIFIC AND CULTURAL ORGANISATION
INTERNATIONAL BUREAU OF EDUCATION — PUBLICATION No. 127

XIII[th] INTERNATIONAL CONFERENCE ON PUBLIC EDUCATION

CONVENED
BY UNESCO AND THE I. B. E.

PROCEEDINGS AND RECOMMENDATIONS

GOVERNMENTS
REPRESENTED AT THE CONFERENCE

Afghanistan, Argentina, Australia, Austria, Belgium, Bolivia, Canada, Chile, Colombia, Denmark, Dominican Republic, Egypt, Finland, France, Greece, Guatemala, Honduras, India, Indonesia, Ireland, Israel, Italy, Luxemburg, Mexico, Monaco, Netherlands, Nicaragua, Norway, Pakistan, Persia, Peru, Philippines, Portugal, Salvador, Sweden, Switzerland, Syria, Turkey, United Kingdom, United States of America, Uruguay, Yugoslavia.

UNESCO
AVENUE KLÉBER, 19
PARIS

INTERNATIONAL
BUREAU OF EDUCATION
GENEVA

Publications of the International Bureau of Education

1. **Guide du Voyageur s'intéressant aux écoles** ..... Fr. 1—
2. **La Paix par l'Ecole.** P. Bovet. Work of the International Conference at Prague ..... Fr. 2.—
3. **Education, Travail et Paix.** Albert Thomas ..... Out of print
   L'Education et la Paix, Bibliographie ..... Out of print
4. **Le Bilinguisme et l'Education.** Work of the International Conference at Luxemburg ..... Out of print
5. **Correspondances interscolaires.** P. Bovet ..... Out of print
6. **The Co-operation of School and Home.** In French ..... Out of print
   In English, German and Spanish .. Fr. 0.60
7. **Comment faire connaître la Société des Nations et développer l'esprit de coopération internationale.** Premier cours ..... Out of print
8. Troisième cours ..... Out of print
9. Quatrième cours ..... Out of print
10. Cinquième cours ..... Out of print
11. **Children's Books and International Goodwill.** 2nd Ed. In French and English ..... Fr. 5.50
12. **L'enseignement de l'Histoire du Travail.** Fernand Maurette ..... Out of print
13. **L'Education en Pologne** ..... Out of print
14. **Quelques méthodes pour le choix des livres des Bibliothèques scolaires** ..... Out of print
15. **Some Methods employed in the Choice of Books for School Libraries** ..... Out of print
16. **La pédagogie et les problèmes internationaux d'après-guerre en Roumanie.** C. Kiritzescu ..... Out of print
17. **Le Bureau international d'Education** (illustrated) ..... Fr. 1.50
18. **A Plan for the Classification of Educational Documents** ..... Fr. 1.50
19. **La Préparation à l'Education familiale** ..... Fr. 3.50
20. **Le Bureau international d'Education en 1930-1931** ..... Fr. 2.50
21. **Le Bureau international d'Education en 1931-1932** ..... Fr. 2.50
22. **La Paix et l'Education.** Dr. Maria Montessori ..... Fr. 1.50
23. **Peace and Education.** Dr. Maria Montessori ..... Fr. 1.50
24. **L'Organisation de l'Instruction publique dans 53 pays** (with diagrams) Fr. 11.—
25. **L'Instruction publique en Egypte** ... Fr. 1.50
26. **L'Instruction publique en Estonie** .. Fr. 1.50
27. **Annuaire international de l'Education et de l'Enseignement 1933** .. Out of print
28. **La coordination dans le domaine de la littérature enfantine** ..... Out of print
29. **La situation de la femme mariée dans l'enseignement** ..... Out of print
30. **Travail et congés scolaires** ..... Fr. 3.50
31. **Le Bureau international d'Education en 1932-1933** ..... Fr. 2.50
32. **Les économies dans le domaine de l'Instruction publique** ..... Fr. 3.50
33. **La scolarité obligatoire et sa prolongation** ..... Out of print
34. **L'admission aux écoles secondaires.** Fr. 5.50
35. **Annuaire international de l'Education et de l'Enseignement 1934** ..... Fr. 14.—
36. **La réforme scolaire polonaise** .. Out of print
36 bis. **Le Bureau international d'Education en 1933-1934** ..... Fr. 1.50
37. **III^e Conférence internationale de l'Instruction publique.** Procès-verbaux et résolutions ..... Fr. 4.50
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41. **Les Conseils de l'Instruction publique** ..... Fr. 3.50
42. **La formation professionnelle du personnel enseignant primaire** .... Out of print
43. **Annuaire international de l'Education et de l'Enseignement 1935** .. Out of print
44. **Le Bureau international d'Education en 1934-1935** ..... Fr. 1.50

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INTRODUCTION

The Thirteenth International Conference on Public Education was held in Geneva from 6th to 14th July 1950.

The United Nations Educational, Scientific and Cultural Organization and the International Bureau of Education, who had agreed to convene this Conference jointly, had previously addressed the following communication to the various Governments inviting them to participate in it:—

Sir,

In February 1947 the United Nations Educational, Scientific and Cultural Organization and the International Bureau of Education concluded an agreement providing for close co-operation between the two Organizations.

By virtue of this agreement, our two Organizations jointly convened in Geneva in 1947, 1948 and 1949 the Tenth, Eleventh and Twelfth International Conferences on Public Education

We have the honour to inform you that the United Nations Educational, Scientific and Cultural Organization and the International Bureau of Education have again decided to co-operate in convening the Thirteenth International Conference on Public Education. This Conference will be held in Geneva, at the headquarters of the International Bureau of Education, from 6th to 14th July, 1950.

As in the case of preceeding Conferences, it will be essentially technical in character. On the one hand, it will enable information to be exchanged on recent developments in the various countries ; on the other, it will afford an opportunity for the international study of a number of topical educational problems which have been the subject of surveys or investigation by the United Nations Educational, Scientific and Cultural Organization and the International Bureau of Education.

The agenda of the Thirteenth Conference will include the four following items :—

1. Concise reports from the Ministries of Education on educational developments during the school year 1949-1950.
2. The introduction to mathematics in primary schools.
3. The teaching of handicrafts in secondary schools.
4. The international interchange of teachers.

The United Nations Educational, Scientific and Cultural Organization and the International Bureau of Education have the honour to invite your Government to participate in the work of this Conference and to send a delegation of from one to three members, representatives of your Ministry, educational experts or cultural *attachés*.

The list of states and international organizations invited to the Conference is attached to this letter. A commentary on the agenda will be sent you later, together with various preliminary documents, including reports on items, 2, 3 and 4 of the agenda.

We very much hope that your Government will ensure the success of the Thirteenth International Conference on Public Education by accepting this invitation.

The Secretariat of the Conference is established at the headquarters of the International Bureau of Education (Palais Wilson, Geneva), to which all correspondence should be addressed.

We should be very grateful if you would let us know, if possible before 15th June 1950, whether your Government intends to be represented on this occasion and, if so, if you would inform us of the composition of your delegation and the name of the person who will be responsible for presenting, under item 1 of the agenda, the report on educational developments in your country during the school year 1949-1950.

To facilitate the distribution and use of this report, we should be most grateful if you would have it reproduced and would supply us with one hundred and fifty copies—if possible, in French and English—not later than fifteen days before the opening of the Conference. This would considerably enhance the value of your report, as it would allow time for an exchange of views.

We have the honour to be, Sir,
Your obedient servants,

Jaime TORRES-BODET
Director-General of the United Nations Educational, Scientific and Cultural Organization

Professor Jean PIAGET
Director of the International Bureau of Education

Here is the text of the detailed agenda sent at the same time as the above invitation :—

I. — *Summary Reports by the Ministries of Education on Educational Developments during the School Year 1949-1950*

The experience of preceding conferences has shown the great importance of an annual review of the educational questions which have been the chief concern of school authorities. For this reason, each delegation is requested to present a short report on the educational trends in its own country during the past school year. The reading and discussion of these reports will enable those taking part in the Conference to obtain a general idea of the progress of education during the past twelve months. These reports will then be published in the *1950 International Yearbook of Education.*

Bearing these considerations in mind, we venture to make the following suggestions, as a guide to the first item on the agenda :

1. In order to facilitate the work of the Conference and to give a certain homogeneity to the contents of the Yearbook, the short report on educational developments should not exceed 3,500 words.
2. It should be *limited to events* of the school year 1949-1950.
3. The distribution of these reports at the time of their discussion has been a great help in drawing the attention of other delegates to these documents. We therefore urge each delegation to have at least 150 copies of its report duplicated, preferably in English and in French, in its own country or in Geneva, and to make sure that the secretariat receives at least one copy a fortnight before the opening of the Conference.
4. We should like to suggest the principal points to discuss in the short report and the order in which, if possible, they should be presented.

   School Administration :

   a) modifications introduced during the school year in school administration (administrative branches, inspection, etc.) ;
   b) education budget ;
   c) school buildings.

School Organisation :

a) reforms or modifications introduced during the year into the structure of pre-school, primary, secondary, vocational, higher and adult education ;

b) opening of new schools in each of these levels of education.

Curricula :

Subjects dropped from or added to the curricula of the various levels of education, during the year under review.

Methods :

a) developments in teaching methods or use of new techniques in education ;

b) New textbooks, etc.

Teaching Staff :

Changes affecting the professional training of teachers and their status (recruitment, salaries, superannuation, etc.).

Auxiliary and Out-of-School Services :

a) innovations connected with the health of school-children and their physical development ;

b) increase in the number of school canteens ;

c) creation of new school psychology or guidance services ;

d) education and welfare of handicapped children ;

e) growth of youth movements, etc.

Other Developments.

II. — *Introduction to Mathematics in Primary School*

The International Conference on Public Education, at its two preceeding sessions, dealt with the problems of learning to read and to write. The inclusion in this year's agenda of the question of the introduction to mathematics in primary schools will thus complete the study of the three basic techniques of all instruction.

Members of the Conference, by means of the preliminary inquiry carried out in 1949-1950 by the International Bureau of Education among the Ministries of Education, will be able to gain a general picture of the solutions the school authorities in the various countries have reached to the problems of the

introduction to mathematics at primary level. Such exchanges of information and recommendations as the Conference may be led to make will serve to inform the responsible authorities and the teachers themselves of the advances made in this field and of the most suitable means of improving the teaching of the subject.

The volume to be placed at the disposition of the members of the Conference will contain a general world survey, and detailed information provided by the various countries on the following points :—

1. *Place of Mathematics in the Curriculum :* Age and nursery-infant or primary class at which the teaching of arithmetic begins ; the number of hours per week devoted to the subject ; the introduction of geometry at primary level.

2. *Syllabuses :* Points dealt with in the arithmetic and mathematics syllabuses for each primary class ; the role of practical exercises ; the incidental teaching of mathematics in lessons on other subjects ; the relative importance of mathematics in primary yearly and school leaving examinations.

3. *Aims :* Official attitudes, instruction or suggestions concerning the aims of teaching mathematics.

4. *Methods :* Official suggestions as to teaching ; methods most commonly in use ; teaching materials, educational games, textbooks and activity methods most frequently employed.

5. *Recent Modifications and Proposed Reforms.*

III. — *The Teaching of Handicrafts in Secondary Schools*

In 1941, the International Bureau of Education undertook an inquiry into the teaching of handicrafts in general. The results of this inquiry were published in a single volume in 1942. However, since the work was carried out in war-time, it was not possible to submit this question to the International Conference on Public Education. This fact, together with the increasing importance given to handicraft activities in the newly established plans for secondary education, led the International Bureau of Education to consider the usefulness of undertaking a fresh inquiry into the teaching of handicrafts in secondary schools, other than the definitely vocational schools.

The documents collected for this inquiry will be available for examination by the International Conference on Public Education at its XIIIth session. To facilitate the adoption of a recommendation to the Ministries of Education, the Conference will also have at its disposal the report drawn up by the Inter-

national Bureau of Education dealing, among other things, with the following points :—

1. *Place of Handicrafts in the Curriculum :* Sections and classes in which such teaching is given ; age of the pupils attending these classes ; compulsory or optional character of handicraft teaching ; number of hours and distribution of time allotted to it ; handicrafts taught as a separate subject or as supplementary to other subjects ; examinations.

2. *Aims of Handicraft Teaching :* Aims to be attained by the introduction of handicrafts in secondary schools.

3. *Syllabus :* Contents of the handicraft syllabus in secondary schools ; differentiation of the syllabus according to the sex of the pupils.

4. *Methods :* Instructions or recommendations concerning methods of handicraft teaching in secondary schools ; most commonly employed methods ; exhibitions and competitions.

5. *Materials and Premises :* Official instructions concerning premises, equipment, tools ; bodies responsible for defraying the cost of installation and equipment.

6. *Teaching Staff :* Teachers in charge of handicraft instruction; training of such teachers.

7. *Miscellaneous :* Recent modifications and proposed reforms.

IV. — *The International Interchange of Teachers*

The Fourth Session of Unesco's General Conference, held in 1949, instructed the Director-General to call a conference of representatives of Member States to consider arrangements for facilitating the interchange of teachers between Member States. Instead of calling a conference solely for this purpose, the Unesco-I.B.E. Joint Committee considered that the Thirteenth International Conference on Public Education would provide an excellent opportunity for discussion of the subject.

In 1949, as part of its Exchange of Persons programme, Unesco initiated an inquiry into opportunities in various parts of the world for short-term (i. e. up to five years) teaching appointments abroad. The first results of this inquiry have been published in " Study Abroad ", Volume II and supplement. In addition the subject was included on the agenda of a Committee of Experts on the Interchange of Persons, held in Paris in September 1949, which recommended more detailed discussion. For this purpose immediately prior to the Thirteenth International Conference a small meeting of experts in teacher inter-

change will be held in Geneva, to draw up recommendations to the Director-General on Unesco's future activity in this field. These recommendations will be made available to the Conference.

Unesco is receiving requests from under-developed areas for assistance in recruiting teachers and professors for schools and colleges in many fields, mainly for periods varying between one and five years. Under its exchange of persons programme, Unesco is endeavouring to assist Member States to meet these requirements.

It is suggested that the Conference discuss the following points :—

1. The promotion of international teacher-interchange by :
   a) extending existing programmes to additional countries ;
   b) initiating new programmes.
2. The exchange of other persons concerned with education such as school-inspectors and administrators.
3. Means to meet the requirements of Member States for foreign specialised teaching staff.
4. The part that governments and international and national agencies can play to these ends.

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The present volume contains the list of the members of the delegations, the proceedings of the meetings, the introductory reports presented by the rapporteurs, Messrs. Calo, Gal and Stewart, the text of the recommendations voted by the Conference on the introduction to mathematics in primary schools, the teaching of handicrafts in secondary schools and the international interchange of teachers.

For a complete documentation on the XIIIth International Conference on Public Education the following volumes should also be consulted :—

Introduction to Mathematics in Primary Schools.

The Teaching of Handicrafts in Secondary Schools.

International Yearbook of Education 1950.

The first two volumes contain the results of the inquiries which served as a basis for the discussions ; the 1950 Yearbook will contain the reports on the educational movements during the year 1949-1950 presented to the Conference by the delegates of the various governments.

LIST OF MEMBERS OF DELEGATIONS

AFGHANISTAN

Mr. Mir Amannoudin ANSARY, Delegate of Afghanistan to the General Conference of Unesco.

ARGENTINA

Mr. Jorge DOMINGUEZ DRAGO, Consul of the Argentine Republic in Geneva (observer).

AUSTRALIA

Mr. W. J. WEEDEN, Assistant Director, Commonwealth Office of Education, Sydney.
Miss Elizabeth BANNAN, Women's Warden at the Teachers' College, Sydney.

AUSTRIA

Dr. Erich FILZ, Permanent Delegate of the Austrian Government in Geneva.

BELGIUM

Mr. CHRISTIAENS, Chief Inspector.
Mr. F. H. VANDENBORRE, Administrative Director, Ministry of Education.

BOLIVIA

Mr. Fr. FERRIÈRE, Consul of Bolivia in Geneva.

CANADA

Mr. F. K. STEWART, Executive Secretary, The Canadian Education Association, Toronto.

CHILE

Mr. Carlos VALENZUELA, Consul-General of Chile in Geneva.

COLOMBIA

Professor G. GIRALDO-JARAMILLO, Permanent Representative of Colombia to the International Bureau of Education.

DENMARK

Mr. T. F. GIMSING, Chief of Section at the Ministry of Education.

DOMINICAN REPUBLIC

Count de HANOT D'HARTOY, Consul-General of the Dominican Republic in Geneva.
Dr. Edgar PÉLICHET.

EGYPT

Dr. Mohammed AWAD BEY, Director General, Cultural Administration.
Mr. Bahgat CHIMY BEY, Director of the Egyptian School Mission in Geneva.
Mr. Mohammed FAHMY, Permanent Representative of Egypt to the International Bureau of Education.

FINLAND

Mr. V. J. AHOKAS, Permanent Delegate of Finland to the International Organisations in Geneva.

FRANCE

Mr. Marcel ABRAHAM, General Inspector of Education, in charge of the University Service of Relations with other Countries.
Mr. Georges CONDEVAUX, General Inspector of Education.
Mr. Roger GAL, Technical Adviser for Secondary Education.
Mr. Marcel LEBRUN, Director of the Educational Museum of Paris.
Mr. Louis CROS, General Inspector.

GREECE

Mr. Jean PAPAYANNIS, Secretary of the Permanent Delegation of Greece in Geneva.

GUATEMALA

Mr. Albert DUPONT-WILLEMIN, Consul of Guatemala in Geneva.

HONDURAS

Mr. Basilio DE TELEPNEF, Consul-General of Honduras in Bern (observer).

INDIA

Mr. L. R. SETHI, Secretary, Education Department, Office of the High Commissioner for India, London.

INDONESIA

Professor H. JOHANNES, " Gadjah Mada " University, Jokjakarta (observer).

IRELAND

Mr. D. P. R. O'BEIRNE, Secretary of the Irish Legation in Bern.

ISRAEL

Mr. B. BEN-YEHUDA, Director of the Department of Education in Tel-Aviv.

ITALY

Mr. Giovanni CALO, Professor of Education at the University of Florence.
Professor A. FRAJESE, Director of Cultural Exchanges at the Ministry of Education.
Mr. Giovanni GOZZER, General Secretary of the School Reform Inquiry Committee.

LUXEMBURG

Dr. Jean-Pierre STEIN, Director of the " Athénée " of Luxemburg.

MEXICO

H. E. Mr. Pedro DE ALBA, Ambassador of Mexico and Permanent Delegate to the International Organisations in Geneva.

MONACO

Mr. René BICKERT, Consul-General of Monaco in Geneva.
Mr. Jean BRUNSCHVIG.

NETHERLANDS

Dr. J. H. WESSELINGS, Adviser to the Ministry of Education, Art and Science.

NICARAGUA

Mr. Basilio DE TELEPNEF, Acting Consul of Nicaragua in Bern.

NORWAY

Dr. Thorleif L. PAUS, First Secretary of Legation, Acting Chargé d'Affaires of Norway in Bern.

PAKISTAN

Mr. M. A. LATIF, Deputy Secretary, Ministry of Commerce and Education (Education Division).

PERSIA

Mr. Mahmoud MEHRAN, Director of the Education Office attached to the Persian Embassy in Paris.
Mr. Ali-Akbar MEHRAN, Director of the Persian Education Office in Lausanne.

PERU

Dr. Ventura GARCIA CALDERON, Delegate of Peru to Unesco.

PHILIPPINES

Mr. Gerardo FLORES, Superintendent of Schools.

PORTUGAL

Mr. Abilio COUTINHO, Vice-Consul of Portugal in Geneva.

SALVADOR

Dr. Fabio CASTILLO, Consul of Salvador in Geneva.
Mr. Albert AMY, Consul-General of Salvador in Geneva.

SWEDEN

Dr. Karl KAERRE, Chief of Section of the General Directorate of Education.

SWITZERLAND

Mr. Albert PICOT, Head of the Education Department of the Canton of Geneva.
Mr. Antoine BOREL, Secretary of the Conference of the Heads of Education Departments.
Mr. Philippe ZUTTER, Head of the Service of International Organisations, Federal Political Department.
Mr. Henri GRANDJEAN, General Secretary of the Education Department of the Canton of Geneva.
Mr. Robert DOTTRENS, Co-Director of the Institute of Educational Sciences of the University of Geneva.

SYRIA

Mr. Abdul Hadi HACHEM, Professor at the Higher Normal School, Damascus.

TURKEY

Mr. Mesut ERGINSAV, Cultural Attaché at the Turkish Legation in in Bern.

UNITED KINGDOM

Mr. T. R. WEAVER, Chief Information Officer, Ministry of Education.
Mr. J. H. GOLDSMITH, H. M's Inspector of Schools.
Mr. D. D. ANDERSON, H. M's Chief Inspector of Schools, Scottish Education Department.

UNITED STATES of AMERICA

Mr. Clyde A. ERWIN, Superintendent of Public Instruction in North Carolina.
Mr. J. Harold GOLDTHORPE, Office of Education, Federal Security Agency, Washington, D.C.
Miss Ruth E. MCMURRY, Program Analyst, Unesco Relations Staff of the Department of State, Washington, D.C.

URUGUAY

Dr. Antonio M. GROMPONE, Rector of the Faculty of Law at Montevideo.
Mr. S. RIVAS COSTA, Consul-General of Uruguay in Switzerland (observer).

YUGOSLAVIA

Mr. Krunoslav DINCIC, Press Adviser to the Yugoslavian Legation in Bern (observer).

ORGANISATIONS REPRESENTED

Observers

United Nations

Mr. Jerzy Szapiro, Director of the European Centre of the United Nations, Geneva.
Mr. Gustavo Duran, Chief of the Cultural Activities Section of the United Nations.
Miss Sybil Atkins.

World Health Organisation

Dr. E. Grzegorzewski, Director of the Vocational and Technical Education Division.
Miss. H. Martikainen, Member of the Hygiene Section.

International Labour Office

Dr. Mildred Fairchild, Head of the Section of Women and Children.
Miss. M. Mortished, Member of the Section of Women and Children.
Mr. F. L. Jones, Manpower Section.

PROCEEDINGS OF THE MEETINGS

FIRST MEETING

Thursday, 6th July, at 11 a.m.

Chairmen : Messrs. Albert PICOT and Tobias WEAVER

OPENING OF THE CONFERENCE

Mr. PICOT *(Switzerland)*, as Head of the Swiss delegation and Chairman of the Executive Committee of the International Bureau of Education, extended a welcome to the delegates of Governments which had accepted the invitation to take part in the Thirteenth International Conference on Public Education, convened jointly by Unesco and the International Bureau of Education. He was particularly glad to see the Director-General of Unesco, Mr. Jaime Torres Bodet, who, in spite of pressing work, had wished to show by attending the Conference, as he had done the previous year, the great importance he attached to a meeting which symbolized the collaboration established between the United Nations Educational, Scientific and Cultural Organization and the International Bureau of Education.

Mr. Picot also greeted the new Director of Unesco's Education Department, Mr. Lionel Elvin, the Head of the Service of Exchange of Persons, Mr. Carter, and the Head of the Clearing House, Mr. Mata Akrawi, who were attending the Conference for the first time. He assured the Conference that the Swiss Federal Council, the State Council of the Canton of Geneva and the Administrative Council of the City were delighted to welcome in Geneva the representatives of the educational authorities of many countries differing so widely both in their educational traditions and in their current educational systems. He was grateful to them for having come to discuss their problems freely and for having agreed to make suggestions to their Ministries of Education. He observed that the task of educational authorities was becoming more and more complex ; there were diffi-

culties, not only in the vast territories where, after a long period of sleep, efforts were being made to awaken an interest in education, or in countries which, for one reason or another (historical, political, etc.) had not yet solved their problems, but also in more fortunate countries, which were the leaders of educational progress. The "quantitative growth" of teaching at all levels, the increase of the school "ration" and the extension of adult education gave rise to problems which seemed to be beyond the power of the authorities to solve: lack of teachers, and the need to build new premises with modern facilities (installation of wireless, sports, camps, etc.). Structural reforms, especially in secondary education which tended to recruit on a larger scale, giving growing importance to professional training, gave rise to serious problems, as did also the raising of the quality of education.

Mr. Picot concluded by expressing the hope that each delegate would benefit from the experience of his colleagues and that the background of the Genevese countryside would provide the necessary tranquillity for their work of peace and goodwill.

Election of the Conference Committee

The Chairman then proposed that the Conference should proceed to elect its officers and called for suggestions.

Mr. Abraham (*France*), in the absence of Mr. Paolo Carneiro, Chairman of the Twelfth Conference, proposed as Chairman Mr. Tobias Weaver, head of the British delegation and head of the Information Service of the Ministry of Education for England and Wales. His personality, authority and broadmindedness, which had been so evident when he had served as Vice-Chairman of the Twelfth Conference, fitted him admirably to direct the work of the current meeting.

(Mr. Weaver was elected unanimously, and took the chair.)

The Chairman, thanked Mr. Picot for the charming welcome he had extended to the Conference. He was very touched by the honour done to him and it was a great privilege to follow in the footsteps of Messrs. Abraham and Carneiro who had been such distinguished chairmen. He would do his best to serve the Conference without undue interference in the discussions. All the delegates appreciated the opportunity of meeting in Geneva and he greeted, in the person of their distinguished representatives, the two great organisations which had sent out the invitations.

The Chairman stressed the interdependence of all countries

in the making of progress, and the need for a spirit of comradeship and goodwill, which he hoped that the Conference would serve to increase. In the name of the Conference, he paid tribute to Professor Piaget, whose election to the Executive Board of Unesco strengthened the ties between the International Bureau of Education and Unesco, and to Mr. Jaime Torres Bodet, whose energy and breadth of vision were, in the eyes of Unesco's friends, of incalculable value.

Mr. ABRAHAM (*France*) proposed as Vice-Chairmen, H. E. Mr. Pedro de Alba, Ambassador for Mexico and permanent delegate to the International Organisations in Geneva, Mr. Mahmoud Mehran, Director of the Educational Office of the Persian Embassy in Paris, and Dr. J. H. Wesselings, Adviser to the Ministry of Education, Art and Science in the Netherlands.

(Messrs. de Alba, Mehran and Wesselings were elected Vice-Chairmen unanimously.)

SPEECH BY THE DIRECTOR-GENERAL OF UNESCO

Mr. TORRES BODET *(Director-General of Unesco)* adressed the Conference in the following words :—

"It is with renewed pleasure that I welcome you to another international conference on public education.

"This is the thirteenth such conference, and the fourth held under the joint auspices of the International Bureau of Education and Unesco. We have therefore already something of a tradition — a tradition in which we may take some pride and which obliges us to continue the good work begun. It is a happy augury that we meet in Geneva, for few cities in the world are so inspiringly associated with the twin causes of education and of peace. In Switzerland the tradition of creative minds in education is as living as it is long ; leaving aside the humanists of Basel, it goes back to Rousseau, followed by Pestalozzi and more recently by Claparède, Ferrière and Bovet. The latest of that noble company is our dear friend and colleague, Jean Piaget. During recent months I have had to call on him three times — once to lecture at our Unesco Seminar on Illiteracy and Adult Education in Rio de Janeiro, the second time to write us a monograph on human rights in education, and finally as Head of the Department of Education in Unesco, a post he occupied with rare distinction. I could not have a better occasion than this on which to express my gratitude to Professor Piaget and my high appreciation of his past services to Unesco and those he still renders us as a member of the Executive Board, and as Director of the International Bureau of Education.

"The agenda of this Conference brings us heavy tasks. We

have to consider the reports made by each of our governments upon the progress made in education during the past year. We have also certain special topics to consider. Also, and perhaps more important than either of these, we have in this conference an opportuniy to think away from our desks, to look outside our classrooms and lecture halls, to consider whether we educationalists are really meeting the needs of the time, and to gain a new sense not only of the national but also of the world-wide mission committed to us. It is with these three intimately connected aspects of our conference that I should like to deal this morning.

"It is, I think, an excellent thing that our joint conferences should include both general discussions of the state of education and more spectific studies of questions that seem of special importance. Our general discussion, based on carefully compiled reports, gives us the possibility of looking impartially at our work, of noting how it appears to colleagues wrestling with similar problems in a rather different setting elsewhere, and of supplementing our experience with theirs. Whether it is in the field of administration and finance, in kindergarten or primary or secondary schooling, in the training of teachers or the improvement of their professional status, or in dealing with programmes and methods and materials, here in this Conference is our opportunity not only to learn new facts but — much more important — to gain new insights, which, on our dispersal, cannot but help us to do our work with clearer vision, adapt it better to our countries' needs and make it more fruitful.

"As regards the special subjects on your agenda, the first thing I should like to say is that they show a realism which seems to me the distinguishing mark of this Conference.

"Our two first subjects relate to teaching programmes. As regards these, however, no new programme can be adopted, or existing programme altered, without due weight being given to methods to enable the child first to grasp and next to get full profit from it ; programme and method being the twin pillars of realistic teaching, between which — as the working papers before us show — there has here been no arbitrary divorce. Now, looked at side by side, the two subjects before us — introduction to mathematics in primary schools and handicrafts in secondary schools — appear at first sight to be unlike almost to the point of incompatibility.

"In the first case, we have to consider the best ways of introducing children to the study of mathematics and this, of course, is part of a much larger study, on which the International Bureau of Education and Unesco are jointly engaged, of the place of the sciences in the training of the mind or, more generally, in the preparation of men for life.

" Since the age of Plato, mathematics have held an important place among school subjects. Probably the men of the ancient world honoured this science less for its practical uses than for its value in "putting the soul in harmony with the universe" ; certainly they missed no opportunity of stressing its worth as a training for the mind. " Have you noticed ", said Socrates, speaking to Glaucon, " that those who are arithmeticians born grasp almost all sciences quickly and that even the slower-witted — once broken and trained to calculation — at least acquire from it greater penetration, if nothing more. "

" It is indeed true that its virile and toughening action on the mind makes mathematics a precious element in humanism. More than many other subjects, it calls for sustained attention and demands the achievement of a positive result. Here is no possibility of deception or self-deception, no room for chance, whim, vagueness, speciousness or the deceitfulness of words or images, but instead the inexorable law of intellectual probity and exact measurement, enforced by the immediate and unquestionable penalty of error and failure. Mathematics imply exact observation at the outset, rigorous and orderly reasoning throughout, clear conclusions at the end. Moreover, the terms of a problem may furnish an object-lesson in international life — as for instance, when the cost-price must be found for an article made in Europe of material of African origin, brought there by power derived from the oilwells of the Middle East, and sold in South America. Education that is truly concerned with the world we live in cannot be indifferent to this science of magnitudes embracing forms and numbers, continuity and discontinuity, and which, if I may say so, spiritualises and humanises the whole world of matter.

" Yet, if we are to believe an adage often quoted, mathematicians are born, not made. Gentlemen, that saying springs from sloth and it is for you to give it the lie. Modern life demands of those who would — as they should — play an active and not a passive part in it, the ability to understand and reason on matters of science and technology, and for that at least an elementary knowledge of mathematics is essential. We should be failing in our fundamental duty if we did not endeavour to fit children to take their place in life as it is. Otherwise they would be left rootless robots — and soon rebels — in a world alien and hostile to them. " The child is father to the man, " goes the English saying. Where men have not been given, as children, the means to make for themselves a free, intelligent and active life in a forward-moving society, the spirit of aggression will grow. Without seeking to exaggerate the part which mathematics should be given in the making of the man

of tomorrow, it should be a considerable one. But above all, let it be genuine.

"How then are we teach the early stages of mathematics, not only to the born mathematician, but to the apparently unmathematical boy and girl ? The light that psychology can throw on the mysteries of a child's mind will be useful. We shall need to call into play a child's instinctive sense of space through drawings and the presentation of measurable objects ; to train his reason progressively by helping him to check the logic in trains of thought ; to awaken his interest by concrete examples and practical applications. Then, too, there may be something to be got from occasional recourse to the history of mathematics, so as to illustrate their empirical origin and how they have evolved towards the abstract. A child's own perceptions could be used to demonstrate the conception of numbers in the mind, the visualization of space and the processes of his first intuitions; while technology, economics and geography can be drawn on to illustrate the use of mathematics in practice. On these problems many teachers have meditated. The old methods, which caused so much sheer misery — I say it frankly — to so many children, have been subjected to the sharpest criticism and most drastic revision. We have still to learn how far this research and experiment, this new thinking and new practice, have found their way into the ordinary classrooms of schools all over the world. Thanks to the study presented to us this week by the International Bureau of Education, we in this Conference are not without a solid basis on which to work, and from our discussions we can hope there may emerge tendencies which you will see fit to incorporate in practical recommendations to your governments.

"Our second special study is of a very different kind.

"Mathematics are already one corrective to what may be excessive concentration in classical education on grammar, words and bookishness. However, whereas mathematics are an application of the principle of training men *through the mind*. handicrafts train men through *matter*.

"Both subjects have the same end in view : to inculcate in the pupil awareness of things as they are and the ability to reason. In handicrafts, there is the perception of things through the medium of all the senses — the primordial sense of touch in particular. The hand is the agent of the mind, whether to mould matter to the ideas of the artist or the thinker, to check speculations by experiment, or to refresh the imagination by contact with reality. The hand, which gives material form to ideas and brings the ballast of reality to thought, is a link between mind and matter. It is not surprising that it should have been a friend of Phidias, the philosopher Anaxagoras, who was the first

to hold that the hand, the skilful hand, is a distinctive mark of man. The writers of antiquity delighted in descriptions of tools — " the extension of the hand " — whose invention they ascribed to the Gods. Athene was the goddess of oratory and wise government, but also the patron of manual tasks, who taught men to harness cattle, cultivate the soil and navigate the sea, and who guided the distaff of the spinning girls. In the Sistine Chapel, Michaelangelo symbolizes the giving of life to Adam's body by the touch of God's hand on his. Descartes advises the modern philosopher to be guided by the embroideresses and lace-makers, " to survey methodically all human handicrafts, even the least important, but above all, those illustrating or demanding order..., such as weaving the patterns for carpets, embroidering, lace-making, and all the combinations of numbers and operations related to arithmetic and the like : all these arts are admirable training for the mind, provided we do not learn of them from others but discover them for ourselves. For, since there is nothing secret in them and they are wholly within the range of human intelligence, they show us very clearly an infinity of processes, all different but all orderly, which, carefully observed, afford us an epitome of human wisdom. " I know not what barbarous folly and prejudice branded manual labour as something that dishonours man, but it is for us to conquer the ingrained habit of men's minds and to secure for manual labour such conditions as — instead of shaming it — will magnify it according to its merits. It has, moreover, an extraordinary educative power which the schools are tending to utilise increasingly. Teachers seeking to train the senses of very young children have found no better means than handicrafts, and the development of project and activity methods has made this even clearer in recent years. Today we may say that handwork has not only become an integral part of primary education but has found its way definitely into the secondary school as well. But what is its place there ?

" This question is all the more important in that it involves the school activities of young people who will very soon be leaving to take their place in agriculture, industry or commerce. What decisions are we to make as to the rôle of handwork here ? How far may we say that even a special skill, too often regarded merely from the bread-and-butter angle, may yet have general educational value ? On the other hand, how far can general culture benefit by the practice of certain types of handwork ? Even if we are not going to be carpenters ourselves, shall we be better or worse men and women if we learn how to work with our hands when occasion arises ? The old prejudices have nearly gone, though the work of far too many men and women is still admittedly lacking in the human dignity it ought

to possess. The toil of the workers in the country and in the towns is steadily rising in the scale of human respect and there is no one now who would dare to say that manual labour, as such, is unworthy of a fully educated man. So the ground is clear for us to do constructive work and I am sure that this conference will build solidly. It is not our task to give labour better economic conditions, but we can raise it to the dignity of an instrument of truly humanistic education.

"These exigencies and these new methods, which we are here striving to analyse will become better known if we enable more teachers to go to study where there is the most vital and instructive experience to be gained. And that explains the purpose of our third special subject — the consideration of means of intensifying international exchanges of teachers. This subject, which is closely connected with the first two, has been placed on the agenda at Unesco's request, and we have had the responsibility of making the preparatory study for it. It was our General Conference of 1949 that instructed me to call an inter-governmental conference to discuss the facilitation of interchange of teachers between our Member States. This was so much a field in which the interests of the International Bureau of Education and Unesco were linked that our joint Conference seemed emphatically the proper place for its expert discussion. I have therefore to thank the International Bureau of Education for accepting my suggestion that it be included in our present agenda.

"All of us who have had the privilege of studying in foreign countries know how much it has meant to us. But perhaps there is no single group of people who need this experience more for their daily work, or through whom the effects of it may better radiate outwards to a whole generation, than the teachers in our schools. The teacher on exchange brings to his new pupils the knowledge and background of his native land and he takes back and transmits to his own pupils at home the benefits of an experience which may be of the highest cultural value.

"In 1948 Unesco undertook an inquiry into international fellowship and scholarship programmes, and you are, I think, familiar with the first volume of our fellowship handbook "Study Abroad". In 1949 the survey was widened to cover opportunities for teachers to obtain teaching appointments abroad. Not all the countries to whom the inquiry was addressed replied, and the replies from other countries were sometimes incomplete. But the results were collected and published in the second volume of the handbook in December 1949. The relevant chapters have now been extracted, amended where necessary, and distributed to you as part of the report prepared by Unesco to guide your discussions here. By showing what has already been

done in many countries to overcome the obstacles to free interchange, we may encourage those countries not yet sending teachers abroad, or inviting foreign teachers to their own schools, to do so.

"A separate part of the document, to which I would also draw your attention, concerns the needs of some areas of the world, less highly developed than others, for competent teaching staff from abroad for short periods, until they have been able to train local staff. Some of you may have teachers readily available to send to the areas concerned; others — themselves suffering from acute shortage — may find it very difficult to help. Through its Exchange of Persons clearing-house, Unesco aims at assisting the recruitment of staff in those areas able and ready to make specialists available.

"To complete our report, we are submitting to you the recommendations of a small meeting of experts on teacher interchange which was called here in Geneva immediately prior to the opening of this conference. These recommendations are addressed specifically to me as a guide for the future development of Unesco's programme. They will, however, I am sure, be of interest to you all, embodying as they do the considered views of administrators of the particular type of exchange of persons programme which we are asking you, as representatives of your governments, to promote.

"I have touched only lightly on these subjects of your special discussions here, in the belief that the documentation prepared by the International Bureau of Education and Unesco, together with your own annual reports, will provide you with ample material for a profitable exchange of experience during your meetings.

"In this coming year we reach the midpoint of the twentieth century. It is a moment in which to take stock, in which to ask ourselves whether, in our own sphere of responsibility, we have solved the specific problems of our times.

"It seems to me that in education the twentieth century is confronted with its own special problem, which is part of the larger question of the organization of the world for peace. The terms of this special problem are defined by Articles 26 and 27 of the Universal Declaration of Human Rights proclaiming every man's right to education of every grade and culture in all its forms. The solemn proclamation of this Right carries with it the duty of offering to all, without distinction of race, sex, class or fortune, equal access to education. The teaching and methods best able to fit all children to discharge the responsibilities which democracy implies, must be spread broadcast. That is the ideal, which it is the educator's task progressively to achieve.

"Can we say that we are as far on towards securing full enjoyment of those rights by all as we ought to be, now that we are half-way on our twentieth century course ? I think that if we limited ourselves to saying that we understand what the problem is and see the main ways by which it must be solved, we should be making the utmost claim that a respect for truth will allow. For the most part our task has only been determined; it remains to perform it.

"I would say that the major achievement of the educationalists of the nineteenth century was to win recognition, in principle and often in practice, for the concept of a universal system of primary schools, either provided by or accepted by the State. That was an immense achievement. But in many ways the task of our predecessors was easier than ours. They could work without a sense of world crisis and, in western countries especially, public education was able to develop at a steady pace as the State's resources and the spirit of democracy grew.

"Today however, it is in a troubled world that we must extend our conquests. It is no longer permissible to consent to what continued for so long behind a screen of poverty, ignorance and under a shroud of silence. We have to make progress with our systems of free compulsory education and at the same time press on with the fundamental and adult education into which Unesco, helped by its Member States, is putting every ounce it can ; and further, we must co-operate in the programme of technical assistance for economic development, in support of which the United Nations are launching a major effort, and in which Unesco and the other Specialized Agencies will have an important part to play.

"Our attack on these three fronts must be a three-pronged one, made without more delay than is strictly necessary to organize and deploy the forces at our command. We must, however, still consider including in the agenda of next year's Conference, the question of compulsory school attendance and the raising of the school age, if our advance is to be methodical.

"Compulsory school attendance is one front, but however great our commitments here, we are not thereby justified in breaking off the urgent and essental action we have launched on the front of fundamental education and illiteracy. We should bear in mind, too, that though the solutions of these two problems are technically distinct, the two are complementary in practice. For instance, in a country in which illiteracy was on the increase, little purpose might be served by raising the school-leaving age. Conversely, according as fundamental education had made up the most appalling of the arrears, compulsory school attendance would be proportionately more effective.

" To discharge the task laid on it by its Constitution, Unesco is accordingly continuing to devote a large measure of its efforts to bringing the blessings of education within the reach of millions of men and women completely deprived of them. The world is not yet sufficiently awake to the fact that more than half its population is illiterate and that, of those who are called literate, a large proportion have had only the sketchiest schooling. Many of them revert quickly to illiteracy, while an even greater number have received no practical teaching adequate to furnish their minds and raise their living standards. Nor is it sufficiently realized that in this twentieth century there are tens of millions of children who have no chance whatever of attending school and who are in a fair way to growing up illiterates. We have to face the fact that in many important regions of the world both the present generation and a large proportion of the coming generation, whose life span may extend well into the twenty-first century, will be left in brutish ignorance. The population is growing faster than teachers are being trained or schools built, and in some regions, the average level of education is declining.

" These are facts of considerable importance, not only for the countries most directly concerned, but for the whole world. For wherever there is ignorance there is also poverty ; poverty often descends into destitution and destitution's constant yokefellow is disease. Under the joint assaults of these scourges, whole peoples are thrown into abysmal depths of misery, whence the cries to war are not slow to arise.

" Poverty makes for social unrest, and ignorance ; in an age when communications are good and propaganda easy, it opens the door to false prophets. There is thus a threat internally to democracy and externally to equality between the nations ; in such a world there can be neither political stability nor international security.

" Moreover, ignorance keeps productivity low and thereby prevents a rise in the standard of living ; the country affected can be no more than a poor partner in international trade, unable to produce foodstuffs, raw materials or manufactured goods in sufficient quantity or of sufficient quality to offer to the rest of the world. Further, it is itself a poor customer because its resources are too scanty to allow it to purchase its needs in foreign markets. In such a world, there can be neither economic security nor material prosperity.

" Humanity is slowly but surely winning the battle against disease. That battle, however, will not be finally won so long as some countries suffer from poor health conditions. However successful the more advanced countries have been in ridding themselves of typhoid or dysentery, smallpox or trachoma, plague

or cholera, they will never be completely secure against further outbreaks of these diseases as long as the infected areas of the world are not cleansed of them. Yet that cannot be effectively done in countries with illiterate masses without first teaching those masses how they can protect themselves against disease, and without training them in the habits of hygiene. So long as the present conditions prevail there can be no security for health in the world.

" Such, I feel, are some of the evil effects resulting from the ignorance of large masses of the world's population, and hence some of the most pressing arguments for an intensive world campaign for the spread of education. I realize that you need no persuading and all I am trying to do is to show the intimate relation between popular education and the problem of peace, and to emphasize the need to fight ignorance not merely on a national, but on a world front. It is a fight which requires real international collaboration and to it Unesco and the International Bureau of Education are bending their full strength. Both must do all in their power to mobilize public opinion and all available material and technical resources throughout the world to help countries to educate their illiterate populations.

" Fundamental education is, of course, largely destined for the adult population past school age. The need is urgent and we ought, alas, to work on the assumption that it will remain so for many years to come. However, for any permanent raising of a country's educational level, steps must be taken simultaneously to ensure the education of the young. While fully recognizing the importance of fundamental education, Unesco of course considers that the normal medium of education is the school, and hence, the question of free, universal and compulsory primary schooling receives its very special attention. The Fourth General Conference of Unesco instructed me to study in 1950, jointly with the International Bureau of Education, the problems involved in making free compulsory primary education more nearly universal and of longer duration throughout the world, and in due course to submit the results of this investigation to an international conference. Following negotiations with the International Bureau of Education, it has been decided that, while the International Bureau of Education brings up to date its earlier study of compulsory schooling in fifty-three countries, Unesco will undertake a number of inquiries into the same problem as it presents itself in certain typical countries. The preparations for these inquiries are already under way, and the resulting reports will be ready in time to be submitted to the next conference on public education, to be held in Geneva next year. During the present year your respective Education Ministries will have resolutely to tackle the problem of raising

the school-leaving age, as their and our great task, and draw up practical plans of campaign with any help they need from Unesco and the International Bureau of Education. Thus in a year's time, we shall be intellectually and administratively ready for a really major conference, at which I hope Ministers of Education themselves will be present with their senior officials. It might, indeed be desirable for them to be accompanied by their countries' Ministers of Finance and Economics, or at the least by experts in economics, sociology and finance. For the raising of the school-leaving age affects a nation's whole economy, implying, as it does, not merely the training of further teachers and the building of new schools, but also a family standard of living sufficiently high for children not to be under the necessity of working for their living from the age of ten or younger.

"There are countries where in practice — whatever the law may say — many children only attend school spasmodically throughout the year, or attend for three years only instead of six. The problem of actual school attendance is inseparable from that of raising the school-leaving age by law, and for their joint solution due account must be taken of the whole pattern of a country's economic and social life. Here may be seen one of the benefits for which educators can look from the Scheme of Technical Assistance worked out by the United Nations and the Specialized Agencies. It throws into new relief the interaction of education and economic advance. The difficult problem which must be solved is that of grafting a progressive educational system on to a specific way of life. Adaptation to the social and economic background is a law we cannot evade. Above all, we must take care that children really get a balanced minimum education and that they do not become frustrated through being unable to finish the course or being offered an elementary instruction which is incomplete and a lopsided, ill-balanced syllabus.

"The position regarding education differs widely from country to country for many reasons, economic or other, and the plans we prepare must obviously allow for this. What we recommend must be consistent with the actual conditions of life in each country — so long, I would hasten to add, as those conditions are not thought of as static and for ever fixed at their present level. I believe it is possible to plan school systems in line with local requirements and local social and economic possibilities which can, at the same time, favour progress.

"I should like us, in the coming year, to study more assiduously than ever the problems raised by education in the twentieth century and to view them from a world standpoint with perfect awareness of both social realities and educational possibilities.

In our inmost hearts we know that what we are planning is nothing more nor less than a beneficent revolution in education — and truly we could never be content with the position as it is today.

"May I, in conclusion, offer you an apologue which I have borrowed from Tsend Ts'an, a disciple of Confucius : " In olden times he who wished to show forth his virtue began by ordering his country aright ; he who wished to order his country aright first ordered his family aright ; he who wished to order his family aright, first sought to acquire culture ; he who sought culture first ordered his heart aright ; he who wished to order his heart aright had first to train his will aright ; he who wished to train his will aright had first to try to attain to knowledge and this he could do only by the study of phenomena. When a man has studied phenomena, he can attain knowledge ; when he has attained knowledge, he acquires a right will ; when the will is right, the heart is corrected ; when the heart is corrected, the man is cultured and order reigns in his family ; when order reigns in his family, it reigns in his country too, and when order reigns in all countries, peace reigns in the world". In this twofold dialectic, ascending and descending, I think we may see, as it were, the plot of the course we must follow as educators concerned at once with the development of human personality and with social peace. If it be true that order in the city derives from order established first in hearts and minds, then it seems to me, gentlemen, that in your agenda you have assumed a vast responsibility identical with that laid on Unesco by its founders — to construct the defences of peace in the minds of men, but also to secure the dignity of man in peace through education, science and culture."

Speech by the Director of the International Bureau of Education

Mr. Piaget (*I.B.E.*) extended a welcome to the delegates on behalf of the International Bureau of Education and thanked the forty governments which had sent representatives to the Conference. He thanked the Director-General of Unesco for his fine introduction and assured him that he could count on the support of the International Bureau of Education in helping to carry out Unesco's objectives.

Mr. Piaget then added a few words on the educational significance of the three items on the agenda of the Conference. The survey in connection with an introduction to mathematics in primary schools formed part of the investigation into science teaching which Unesco had requested the International Bureau

of Education to undertake. Scientific education was useful in itself, provided that the gulf between public opinion and the specialists was not allowed to grow wider. An introduction to science was of particular educational value, as it helped to develop activity methods in education. It was a fact that a truth which was merely learnt was only a half-truth, the whole truth being reasoned out, reconstructed or rediscovered by the pupil himself. It was easier for the pupil to re-invent arithmetical or geometrical rules than grammatical rules. By his own groping about, he attained an experimental method, and by carrying out his own operations, a deductive method. Child psychology showed the wealth of logical mathematical and physical constructions reached spontaneously. It was therefore necessary to adapt teaching methods to this capacity shown by the child. This training was important for all, in both the national and the international sphere, for it was through scientific training that the child acquired the objectivity, critical spirit and independent reasoning so necessary today. The inquiry into the introduction to mathematics would have two parts. The first would comprise the results of an inquiry undertaken through the Ministries of Education. The second would compare the results of certain methods and would study a few particularly interesting achievements and a few special points (rules for plus and minus signs, etc.).

The second point on which the Conference would be asked to take a decision was that of handicrafts in secondary schools. All contemporary psychology taught us that intelligence springs from action. The intellectualistic school ignored that truth ; it was inclined to lose itself in words without penetrating to the living core of human reason. Practical intelligence sprang from contact with reality, hence the value of handicrafts. The latter played an important part in the teaching of elementary techniques, but above all in the training of the mind itself (role of technique in acquiring a knowledge of physics and biology).

As the Director-General of Unesco had already commented on the third item of the Conference's agenda, Mr. Piaget did not think it necessary for him to say anything further about the interchange of teachers.

He concluded by thanking those present for having come in such large numbers and, on behalf of the International Bureau of Education, wished them every success in their work.

The CHAIRMAN thanked the two preceding speakers for all the information which they had given to the Conference. After drawing by lot to see the order in which the countries would present their reports, he announced that the presentation would commence with the letter G.

(The Meeting rose at 1 p.m.).

SECOND MEETING

Thursday, 6th July, at 3 p.m.

Chairman : Mr. Tobias WEAVER

The CHAIRMAN declared the meeting open, and announced that item one on the agenda would be taken first : Presentation of reports on educational developments.

He proposed that in presenting their reports, speakers should deal only with those points particularly worthy of comment.

(This proposal was seconded by Messrs. Latif (Pakistan) and Abraham (France), and was adopted.)

Mr. WESSELINGS (*Netherlands*) wished to thank the Conference for honouring his country by choosing him as one of the Vice-Chairmen.

REPORT FROM INDIA

Mr. SETHI (*India*) presented the report of his Government on educational developments in his country, and replied to questions from Messrs. VANDENBORRE (*Belgium*), KAERRE (*Sweden*), CONDEVAUX (*France*), and GOLDSMITH (*United Kingdom*).

The problem of the spoken language had long existed. An attempt was being made at present to introduce Hindi as the common language. Many books had already been written in this language, which is spoken by the majority of the population. There was still a difficulty, however, since the inhabitants of southern India do not know Hindi. A federal bureau of textbooks had been established which was attempting to make the necessary translations as quickly as possible, but to produce new textbooks was a difficult task, which would certainly take a long time.

It would scarcely be advisable to give up English immediately as a spoken language. It was true that, in the excitement and enthusiasm which followed the declaration of independence some rather extreme decisions were taken. These were later rescinded, and English would remain the administrative language for the next fifteen years. The University Commission had recommended that it be the official second language, at least on the university

level. In some states, parents had protested against the omission of English in primary schools.

By social education, India meant civic education linked to the struggle against illiteracy. A resolution had been drawn up containing twelve items, covering all methods which could be utilised.

An additional budget of 50 lakhs was voted in 1949-1950 for the training of teachers and educationists. Progress was, however, somewhat slow as a result of the lack of qualified teaching personnel.

India attached great importance to practical subjects such as weaving, agriculture or gardening. The theoretical aspects of the practical work, such as, for example, the origin of cotton supplies, were taught at the same time.

The CHAIRMAN thanked the delegate of India and, in the name of the Conference, expressed admiration at the courageous manner in which the Government of India was tackling such difficult problems.

The Chairman announced that the delegate of Mexico, Mr. Pedro de Alba, had suggested that the Conference should pay tribute to the memory of the great educationist Jaques-Dalcroze in the following words :

"The XIIIth International Conference on Public Education desires to present its deepest sympathies to the Swiss Federal Council and to the authorities of the Canton of Geneva, on the occasion of the death of the great musician and educationist Jacques-Dalcroze, and expresses the wish that the representatives of the countries attending the Conference may contribute to the diffusion of his ideas on aesthetic education."

Mr. DE ALBA (*Mexico*) was sure that the Conference shared the sorrow of the Swiss nation and of Geneva at the death of Jaques-Dalcroze. Mr. Torres Bodet had spoken that morning of Pestalozzi, Rousseau, Claparède, Ferrière and Bovet ; Jaques-Dalcroze belonged to that same category of Swiss educationists. Pupils and teachers of Geneva and of the whole of Switzerland were not alone in mourning for him and there was no doubt that the educationists of the countries represented at the Conference shared their sorrow.

(The proposal was adopted and the Conference observed one minute's silence in memory of Jaques-Dalcroze.)

REPORT FROM IRELAND

Mr. O'BEIRNE (*Ireland*) presented the report on educational developments in his country, and then replied to questions from

Messrs. DE ALBA (*Mexico*), LATIF (*Pakistan*) and FLORES (*Philippines*).

Although Ireland was above all an agricultural country, it had no special system combining agricultural and primary teaching. Agriculture was taught to adolescents and adults at vocational training schools.

The percentage of illiteracy was extremely low.

Irish was an ancient tongue and was almost considered a dead language a century ago. Since then, an effort had been made to revive it and for the last thirty years this attempt had been specially successful. Irish was now spoken in all schools. In some, teaching was in that language only ; in others, English and Irish were of equal importance. These two languages were both recognised as official. However, English was spoken more, since Irish had been re-introduced rather recently.

REPORT FROM ITALY

Mr. CALO (*Italy*) presented the report on educational developments in his country and replied to questions from Messrs. ABRAHAM (*France*), ERWIN (*United States*), SETHI (*India*) and BOREL (*Switzerland*).

Besides official nursery schools, there were many private nursery schools, several of which had been subsidised by the State.

The resolution covering school reform was still being studied and had not yet become a law. Its final shape was not yet known. There was a marked trend in favour of the establishment of a comprehensive school following primary education, and of easier access to secondary schools. Moreover, it was hoped to establish compulsory education for children up to fourteen years of age.

As to adult education, three types of courses had been set up and the State spent a billion liras annually to subsidise a) courses giving fundamental education to illiterate adults ; b) courses for adults who were almost illiterate, having forgotten the little that they had learned ; c) courses of general culture and advanced courses (social and contemporary problems), intended for literate adults for whom they had also set up various courses of technical training.

The vocational schools were above all schools of guidance and professional training (commercial, agricultural, etc.), whereas the technical schools (two-year) trained office workers and skilled workmen. The various vocational schools at primary and secondary level were distributed according to the needs of local industry.

The present percentage of illiterates was not known, as no

recent statistics had been gathered in this matter. Their number was estimated to comprise 15 per cent of the total population. In the fight against illiteracy, special primary teachers were generally used, as well as volunteers. Many private organisations accomplished a great deal in this field.

Instruction in art had been increasing and the State was very interested in this question. Hardly any outstanding private schools existed, for the golden age of benefactors had passed.

The CHAIRMAN thanked Mr. Calo for his excellent speech. He called attention to the reception to be given by the State Council at the Palais Eynard on Friday evening. He stated that the Friday morning meeting would begin with the report from Luxemburg. The afternoon would be devoted to a general discussion of item 4 on the agenda, the International Interchange of Teachers. The subject would be introduced by Mr. Stewart (Canada), as rapporteur.

(The Meeting rose at 7 p.m.)

THIRD MEETING

Friday, 7th July, at 10 a.m.

Chairman : Mr. Tobias WEAVER

The CHAIRMAN announced that the discussion of the reports on educational developments would continue, and called upon Mr. Latif, delegate of Pakistan.

REPORT FROM PAKISTAN

Mr. LATIF (*Pakistan*) presented the report on educational developments in his country, and replied to questions from Messrs. ANSARY (*Afghanistan*), HACHEM (*Syria*), JOHANNES (*Indonesia*), Miss BANNAN (*Australia*), and Messrs. GOLDSMITH (*United Kingdom*) and SETHI (*India*).

Adult education was not yet based on any system, and was at present just being started. The conference of specialists held in 1947 stressed that if a country wished to be a real democracy, it should abolish illiteracy. A law in Sind stipulated that employers allow their employees one or two hours a day to acquire some knowledge of the three R's at the end of the year ; employees not attending these courses were penalised.

Pakistan had a federal constitution, but the government merely indicated the system to be adopted by the provinces. There was an advisory committee composed of provincial leaders, heads of universities, etc., which met twice a year ; the provinces had thus taken over responsibility in the matter.

In the Northern Provinces where there were tribes composed of soldiers or half trained men, adult education was compulsory, since that region was directly under the authority of the central government. There were three educational centres where the success achieved was often due to the fact that the students knew that good work meant promotion. In these establishments could often be found men of over fifty who were learning to read.

Although many women were still veiled, there was much enthusiasm for women's rights. Despite the fact that there were some co-educational institutions, girls were still sufficiently

influenced by tradition to prefer schools for girls only. In Karachi, for instance, there was an institute where girls could prepare for the bachelor of arts or science degree. There was also a medical school for women.

The problem of teacher training was a very difficult one ; there was a shortage of teachers. Although there were scholarships for foreign study, the recipients often returned home without having had sufficient contact with their colleagues. It was proposed to secure from the United Kingdom three or six instructors who, after devoting two months to a study of the systems used in Baluchistan and Karachi and of the problems involved, could propose the best methods for training three hundred teachers in nine months.

Report from Monaco

The Chairman called upon the delegate of the Principality of Monaco.

Mr. Brunschvig (*Monaco*) summarised his report on the educational movement in his country during the period 1949-1950.

The Chairman, after thanking the delegate of Monaco, announced that the Conference would then proceed to the inauguration of the stands on the teaching of handicrafts, which had been specially prepared within the framework of the Permanent Exhibition of Public Education, by the education authorities of France, Belgium and Switzerland.

Mr. Vandenborre (*Belgium*) presented his country's stand on the teaching of handicrafts, saying that it was of a provisional nature, and that the Belgian Ministry of Education had decided to arrange a stand at an early date of a more permanent character.

Mr. Piaget (*I.B.E.*) thanked the Belgian education authorities, Mr. Vandenborre in particular, for the extreme rapidity with which they had collected together the exhibited objects and documents.

Messrs. Lebrun and Gal (*France*) commented on the exhibits in the stand devoted to the teaching of handicrafts in the "new classes" of France.

Mr. Piaget (*I.B.E.*) congratulated the organisers of this stand, saying that it illustrated clearly and attractively the problems with which the Conference would have to deal when it came to point three of its agenda.

Mr. BOREL (*Switzerland*) gave some explanations in connection with the stand on the teaching of handicrafts, arranged by the Pestalozzianum in Zurich.

Mr. ABRAHAM (*France*), as chairman of the Council of the International Bureau of Education, thanked the directors of the Pestalozzianum, and Mr. Borel who, in his capacity of chairman of the Swiss Committee of the Permanent Exhibition of Public Education, had contributed very greatly to the success of this exhibition.

REPORT FROM THE NETHERLANDS

The CHAIRMAN called upon Mr. Wesselings, the delegate of the Netherlands to present his report on educational developments in his country.

Mr. WESSELINGS (*Netherlands*) commented on his report and replied to questions from Messrs. ANSARY (*Afghanistan*), CONDEVAUX (*France*), ANDERSON (*United Kingdom*), FILZ (*Austria*), CHRISTIAENS (*Belgium*) and KAERRE (*Sweden*).

The difficulties encountered in modifying the teachers' training act were of both a political and a financial nature ; the new plan provided for higher salaries for primary teachers giving part-time assistance in normal training.

In teachers' training colleges, pupils were recruited either from higher primary schools or from secondary schools. After two years, pupils of the first category had to pass the baccalaureate. The examination for pupils from secondary schools was not the same, but in practice had the same value.

The teaching staff of training colleges was recruited from secondary education, but could also be chosen from among specialist primary teachers.

Eight years of schooling were required ; pupils who entered school at the age of seven left it when they were fifteen or fifteen and a half.

In general, foreign languages were taught by Dutch teachers possessing special qualifications, rather than by foreign teachers.

Pupils in upper grades, as well as those in the lower grades, had to give two to three hours daily to homework on the average. Young people preparing for the baccalaureate studied longer.

REPORT FROM PERSIA

Mr. MEHRAN (*Persia*) thanked the Conference for the honour done him and his country in electing him a Vice-Chairman, presented his government's report on the educational developments in his country, and then replied to questions from

Mr. FLORES (*Philippines*), Miss MCMURRY (*United States*), Messrs. ABRAHAM (*France*), ANSARY (*Afghanistan*), HACHEM (*Syria*) and GOLDSMITH (*United Kingdom*).

The organisation of education had been decentralised only from the administrative point of view, so as to avoid "red tape". As far as finance was concerned, each town had its own budget.

Secondary teaching for girls consisted mostly of artistic work and handicrafts. Academies and technical institutions existed, but very few girls attended them.

School buildings were mainly paid for by the State, but the municipal authorities contributed to the cost of supplies and games equipment, etc.

Vocational training was not the same in the villages as in the towns. In the former, the children had to help their parents. They were therefore given four years of elementary schooling, after which they were taught the fundamentals of agriculture, hygiene and other practical subjects. The question did not arise in the towns, where the studies were related to the country's economic progress and needs.

At the academies and universities, students could choose between English, French, German and Russian, but most of them chose English or French. Almost all the teachers were Persians, but they all knew either French or English. Four Austrians had been engaged last year to teach at the medical faculty at Tabriz, but they were required to teach in French.

Recent modifications in primary schooling had been mainly in the completion of textbooks so as to bring the children into closer touch with life.

The CHAIRMAN thanked the delegate of Persia for his interesting statement, which bore witness to the great interest shown by his government in education.

(The Meeting rose at 12.40 p.m.)

FOURTH MEETING

Friday, 7th July, at 3 p.m.

Chairman : Mr. Tobias WEAVER

THE INTERNATIONAL INTERCHANGE OF TEACHERS
GENERAL DISCUSSION

The CHAIRMAN declared the meeting open, and said that the Conference would proceed to general discussion of item four on the agenda : the international interchange of teachers. The delegates had received all the relevant documents.

He then called on Mr. Stewart, rapporteur, to present the report based on the conclusions reached at its recent session in Geneva by the Committee of Experts nominated by Unesco.

Mr. STEWART (*Canada*), speaking as rapporteur for item four of the Conference agenda, was appreciative of the honour done him in electing him chairman of the Committee of Experts. His country, Canada, encouraged the interchange of teachers between the provinces (as well as carrying on exchange on an international scale), with a view to the improvement of teaching and to the development of international understanding. For working brings closer acquaintance, closer acquaintance brings understanding, and understanding is the beginning of friendship.

He believed that before beginning the general discussion of his report, it would be useful to hear Mr. Carter, Director of the Service of Exchange of Persons, Unesco. Both he and members of the Committee would try to answer questions and aid in the discussion.

Mr. CARTER (*Unesco*) on the 4th and 5th of July had attended meetings of experts to study the problem of the exchange of teachers. He realised that the problem was complex and noted various obstacles to these exchanges. Some, such as the difficulties created by the differences in language, could act either as a barrier or as a stimulant. It would therefore be necessary to exercise great care in the selection and briefing of candidates. Teachers who were sent abroad represent a culture ; they should be better acquainted than others with

problems in their country and in other countries. Legal and professional difficulties could be avoided by organising brief exchanges, using the foreign teacher as assistant.

The CHAIRMAN reminded the Conference that its Secretariat was engaged in preparing a draft recommendation to the Ministries of Education, and suggested that a general debate on the exchange of teachers should take place.

Mr. GOLDTHORPE (*United States of America*), who had attended the meeting of experts as an observer, proposed certain amendments to the report, in connection with the list of countries which organised exchanges of teachers.

The CHAIRMAN did not think that it would be in order for the Conference to amend the reports which had served as a basis for the discussions of the Committee of Experts and proposed that any corrections should be noted by Messrs. Stewart and Carter.

Mr. ABRAHAM (*France*) remarked that the group of experts had not drawn up a restrictive list, but that subsequent additions thereto could be made.

The CHAIRMAN declared the discussion open.

Mr. AKRAWI (*Unesco*) said that while it was true that the report of the meeting of experts mentioned the exchange programmes in operation between countries of the same language, there were important programmes existing between countries of different languages which should be mentioned in the report.

Mr. STEWART, at the request of the Chairman, listed the countries represented on the Committee of Experts.

Mr. PIAGET (*I.B.E.*) observed that Unesco's intention in wishing to see this question placed on the Conference agenda, was to get the opinion of the Conference on it, regardless of whether such opinion would be in agreement or not with that of the Committee of Experts. The report of the Committee of Experts had been placed before the Conference simply as basis for its general discussion. The Conference might widen the field of discussion and put forward proposals they deemed of value, or even oppose the conclusions arrived at by the Committee of Experts. Unesco would thus have at its disposal, not only the recommendations of the Committee of Experts, but also those of the Conference.

Miss BANNAN (*Australia*) drew attention to the importance of giving wide publicity to the exchange programme, and to the necessity of safeguarding the rights of exchanged teachers (right

to a pension, etc.). The question of currencies was of particular importance to countries in the sterling area. In selecting teachers, care should be taken to ensure that they were sufficiently young for their pupils to benefit for a long period from their travels ; they should also be chosen for their personal qualities as well as for their academic qualifications, as it was by them that foreign countries would judge the country which sent them.

Mr. DE ALBA (*Mexico*) congratulated those who had drafted the report, which he considered very encouraging. There was no question of the exchanges being purely tourist visits. It was highly desirable that exchanges should be on a reciprocal basis. The experiments carried out by the Bureau of Inter-American Affairs were excellent, but worked only in one direction : only the pupils and the teachers of South America benefited from them, as they travelled northwards, while those in the North did not come South. As the delegate of Canada had said, it would be desirable for large countries to organise exchanges of teachers within their own frontiers, thus increasing people's knowledge of their own country and strengthening its unity. Certain nations were composed of many different races and fellowships available to representatives of each of those races should be created within the country.

Mr. KAERRE (*Sweden*) expressed the Conference's gratitude to Unesco for having placed the item under discussion on the agenda. Among the difficulties which remained to be overcome, there was the question of deciding who should be responsible for the travelling expenses of foreign teachers ; theoretically, it should be the country which sent them. Linguistic barriers were much more serious for small countries, such as the Scandinavian countries and the Netherlands, which would welcome French or English teachers, for example, but were faced with the difficulty that their own teachers were far more difficult to place in other countries. Exchanges of teachers in other subjects were even more difficult than exchanges of language teachers. Salaries differed from country to country, but Sweden would always be ready to pay higher than average salaries, as she greatly appreciated the value of foreign teachers.

Mr. DE TELEPNEF (*Honduras and Nicaragua*) seconded the remarks of the delegate of Mexico, especially as regards the desirability of reciprocal exchanges.

Mr. ABRAHAM (*France*) congratulated the delegate of Sweden on his brief summary of the problems which had been considered by the Committee of Experts, but without finding a solution. He also paid tribute to the rapporteur for the clear and precise manner in which he had presented his report.

The problem of exchanges was obviously more difficult between small countries such as the Scandinavian countries or the Netherlands, and larger countries. A distinction should be made between reciprocal exchanges, and missions which might be called " the temporary export " of teachers. The exchange of modern language teachers was particularly important for international understanding. Exchanges of whole classes accompanied by their teachers had also proved very fruitful. It was also very important that university leaders and assistants should belong to the country whose language they taught, in order that they might at the same time teach about the whole of its civilisation and culture.

The report recommendation to keep the exchanges flexible could not apply to all cases of reciprocal exchanges, where repeated renewals might prove necessary.

In some countries there were legal or other difficulties to bringing in or sending out teachers. It was to be hoped, therefore, that Unesco would make known as far as possible the situation in the different countries, so that less stringent laws or regulations could be studied where necessary.

It was essential that the International Bureau of Education continue its inquiry into salaries and living conditions of primary and secondary teachers in the various countries. As to reciprocity, it was desirable but not indispensable. Every country should, however, be ready to make a financial sacrifice.

Whether Unesco should act merely as " an intelligent mailbox " or as a stimulating force had often been debated. In this matter it was essential above all to remain open-minded.

In their regular meetings, the experts should limit themselves to studying last year's results, to taking developments into account as they occur, and to proposing future recommendations to Unesco's Director-General. It would be advisable in the future to add a number of specialists to the Committee's permanent body, from countries other than those now represented.

Mr. CALO (*Italy*) said how much the Italian delegation favoured any exchange contributing to the free flow of ideas. He drew attention to the fact that in the case of an exchange of university professors there were no real difficulties, since this was an exchange in the field of science. An exchange of secondary teachers — and, even more, of primary teachers — could create a delicate problem, however, which should be taken into consideration. For the teacher's task is educational, and this means a true understanding of the spiritual values, traditions and customs of the country where he is sent.

This problem obviously became less acute when the teacher going abroad taught his own language or when he did not assume

full responsibility but was an assistant. These different aspects of the problem should be studied.

Italy had already begun the task. She was at present studying exchanges with France and with the United States under the " Fulbright Act " and it was hoped that many exchanges would result. It was necessary to promote any exchange or mission which would bring together different ways of life and thereby contribute to international understanding.

Mr. JOHANNES (*Indonesia*) expressed his complete agreement with the recommendations put forward in the report of the Committee of Experts, especially with the 4th concerning the assistance by the Director-General in the recruitment of teachers for the less developed areas. It was very difficult for less developed countries (of which Indonesia was one), with their paucity of teaching personnel and financial resources, to exchange teachers with more developed areas. Indonesia had need of many teachers, but at present there were no teachers from abroad teaching in Indonesia except Dutch teachers and professors. Indonesian teachers, on the other hand, were teaching the language, geography and ethnology of Indonesia abroad. It was to be hoped that with the help of recommendation four and the goodwill of other countries, Indonesia would succeed in getting the help it needed in the building up of a new state.

Mr. STEIN (*Luxemburg*) stated that despite their interest in exchanges of teachers and professors, little countries like his own, which had no national language, met with difficulties. He outlined these obstacles. He would therefore prefer the more flexible system, of " educational missions " advocated by Mr. Abraham. It would be easier for his country to take part in these.

Miss MCMURRY *(United States)* wished to add her congratulations to those already offered to the Committee of Experts for the truly constructive task it had accomplished. She stressed the importance of evaluating the results of these educational exchanges and asked that their value be judged not only during and immediately following a teacher's stay abroad, but over a long period.

Mr. SILBERER *(I.L.O)* asked, for his own information, whether the exchange of teachers was really the most useful in promoting international understanding. Should the teacher going abroad actually exercise his profession ? Would it not be more profitable for him to increase his knowledge or even engage in manual labour ? If this solution involved some administrative difficulties, it would still have the advantage of helping to solve problems arising from the language barrier.

Mr. ANSARY *(Afghanistan)* affirmed that his country was one of those for which it was difficult to recruit teachers from abroad. He hoped that Unesco might be able to help Afghanistan in solving the problem.

Mr. BEN-YEHUDA *(Israel)* stated that he would abstain from voting on the recommendation for two reasons : a) it was difficult to accomplish the task proposed, Israel's official language was Hebrew, which no other nation used in its classes ; b) despite the teacher shortage, Israel sent many of its teachers to other countries, but this problem was difficult and delicate and had not yet been sufficiently studied by his government.

Mr. CARTER *(Unesco)* summarized the discussions as follows . a) exchanges were not merely a problem of reciprocity, but were also a problem of "export" and "import" ; b) there were certain backward regions which should be taken into account ; c) a certain flexibility should be kept in organising exchange programmes ; d) a conference of experts was very useful for the secretariat ; e) with regard to the point raised by the I.L.O. representative, the aim of the Conference, which was to promote the exchange of teachers with a view to improving the quality of their teaching, should be borne in mind.

VOTE ON DRAFT RECOMMENDATION NO. 29 CONCERNING THE INTERNATIONAL INTERCHANGE OF TEACHERS

The CHAIRMAN announced that voting would now take place on Draft Recommendation No. 29 concerning the International Interchange of Teachers, which ran as follows :

TEXT OF DRAFT RECOMMENDATION NO. 29

The International Conference on Public Education,

Convened at Geneva by the United Nations Educational, Scientific and Cultural Organization and the International Bureau of Education, and being assembled on the sixth of July for its thirteenth session, adopts on the..... .....the following recommendation :

The Conference,

Convinced that one of the most effective and practical ways of promoting a deeper understanding among peoples of different nationalities and cultures is the international interchange of teaching personnel and educational administrators,

Bearing in mind also that it is necessary to associate governments in the facilitation and promotion of programmes providing

for the interchange of teachers between countries and for non-permanent appointments of teaching personnel abroad,

Submits to the Ministries of Education of the various countries the following recommendation :

1) That wide publicity be given, among governmental, professional and private institutions and organizations concerned with education and with the promotion of international understanding, to programmes for non-permanent appointments and the interchange of teachers ;

2) That particular attention be given in the continuation or planning of programmes for the promotion of international cultural relations, to the interchange of teachers and the establishment of non-permanent posts from abroad ;

3) That such interchange schemes and arrangements for non-permanent appointments be extended where possible to other countries and to other regions, and that they be broadened to include all categories of teachers ;

4) That steps be taken to ensure that teachers sent abroad on non-permanent appointments or interchange arrangements do not lose status, superannuation rights, etc., during their period of teaching abroad ;

5) That steps be taken to encourage schools and colleges to accept teachers from abroad and to release teachers for periods of teaching in other countries, and, with this end in view, to consider the removal, as far as possible, of legal or administrative obstacles to such movements ;

6) That steps be taken to remove restrictions to the exportation or importation of currency for persons appointed to non-permanent appointments abroad and interchange posts and, where necessary, to make special arrangements with respect to taxation of persons engaged on such teaching appointments ;

7) That steps be taken to support financially interchange schemes and arrangements for non-permanent appointments handicapped through lack of subsidy for transportation, cost-of-living differential, or other necessary expenses.

Notes with pleasure and wishes to support the follcwing Recommendations to the Director-General of Unesco, of the Meeting of Experts on the International Interchange of Teachers convened by Unesco :

" The Committee of Experts recommends to the Director-General that he continue to promote the international interchange of teachers and arrangements for non-permanent appointments abroad :

a) by keeping governments aware of the importance of these programmes in order to promote international understanding ;

b) by publishing and giving wide dissemination to information on opportunities to teach abroad ;

c) by encouraging governments and private agencies to promote programmes ;

d) by publishing and disseminating reports of Member States on their experiences in the field of teacher interchange and non-permanent appointments abroad, and rendering advice, on request, for the organisation of programmes ;

e) by placing the services of its educational clearing-house at the disposal of persons requiring information on the educational structure of other countries and the significance of academic qualifications ;

f) by enabling experts on interchange programmes to meet periodically to study developments in the field of interchange and non-permanent appointments abroad and to develop plans to meet new problems and requirements. "

" The Committee views with particular concern the needs of certain less-developed areas of the world, for advanced specialised teaching staff, from abroad. It recommends to the Director-General that he assist in the recruitment of suitable personnel in accordance with the capacity of his Organization, and suggests in particular that he :

a) invite Members to investigate and announce their requirements ;

b) publicize these requirements ;

c) study possible sources of supply ;

d) in exceptional cases and when particularly requested to do so undertake direct recruitment on behalf of Member States. "

Preamble

Mr. HACHEM (*Syria*) proposed replacing the words, in the first paragraph of the French text of the preamble, " personnel enseignant et des administrations en matière d'éducation ", with the words " professeurs et éducateurs ", and also proposed inserting, in the last line of the second paragraph of the French text of the preamble, the words " et d'éducateurs ", it being left to the discretion of the Conference Secretariat to find a suitable rendering of such amendments in English.

These proposals gave rise to a discussion, in which the CHAIRMAN, Messrs. HACHEM (*Syria*), FLORES (*Philippines*), LATIF

(*Pakistan*), CARTER (*Unesco*), ABRAHAM (*France*) and WEEDEN (*Australia*) took part.

(These amendments were adopted.)

Mr. WEEDEN (*Australia*) proposed that the words " and of raising educational standards " be inserted in the first paragraph of the preamble, after the words " different nationalities and cultures ".

(This amendment was adopted.)

The CHAIRMAN proposed that the first seven articles be examined and voted upon.

Article 2

Mr. AKRAWI (*Unesco*) asked if there was not a certain repetition between article 2 and the first paragraph of the preamble.

Article 5

Mr. LATIF (*Pakistan*) proposed that the words " schools and colleges " in article 5 be replaced by the words " educational institutions ".

(This amendment was adopted.)

Articles 3 and 5

Mr. ABRAHAM (*France*) proposed that the word " ceci " in article 3 (French text) be replaced by the word " cela ", and the word " accept " in article 5 by the word " receive ".

(These amendments were adopted.)

Mr. LATIF (*Pakistan*) proposed the adoption of articles 1 to 7.

This proposal was seconded by Messrs. AWAD (*Egypt*), GOLDTHORPE (*United States*) and ABRAHAM (*France*).

(Articles 1 to 7 were adopted.)

Recommendations to the Director-General of Unesco

Mr. ABRAHAM (*France*) proposed that the words " Note avec plaisir et appuie " in the first paragraph (French text) be replaced by the less arbitrary " accueille et désire appuyer ".

Mr. LATIF (*Pakistan*) proposed that the words " Notes with

pleasure and wishes to support" in the first paragraph be replaced by the words "Takes note of and supports".

(The latter amendment was adopted.)

Mr. ABRAHAM (*France*) went on to propose that the word "encourager" in the French text be replaced by the word "favoriser", and the word "programmes" in section (a) by the word "exchanges". He believed that the words "publishing and" in section (b) could be omitted without prejudice to the text. He also proposed to modify section (c) as follows: "by encouraging public and private educational institutions to institute exchange programmes."

The CHAIRMAN observed that it would be unreasonable to change the text approved by the Committee of Experts after having accepted the introductory paragraph.

After a discussion in which Messrs. ABRAHAM (*France*), WEEDEN (*Australia*) and the CHAIRMAN took part, the latter further proposed that Mr. Stewart and the other members of the Committee of Experts, taking account of this discussion, should draft the final text of the resolutions addressed to the Director-General of Unesco.

Mr. CALO (*Italy*) proposed that the following words be added to the end of section (e): "and by confiding this task to the national commissions of Unesco".

The CHAIRMAN again observed that in his opinion the Conference was not qualified to modify the text of the recommendations of the Committee of Experts to the Director-General of Unesco.

Mr. WEEDEN (*Australia*) proposed that the Conference take no decision on Mr. Calo's proposal, but that it be included in the minutes.

Mr. CALO (*Italy*) stated his agreement.

(The thus amended text of Draft Recommendation No. 29 concerning the International Interchange of Teachers was adopted.)

The CHAIRMAN reminded delegates of the reception to be given at nine o'clock that evening by the Genevese authorities at the *Palais Eynard*. The Conference would resume on Saturday at 10 a.m. He proposed that the Conference hold no meeting on Saturday afternoon.

(This proposal was adopted.)

(The Meeting rose at 7.20 p.m.)

FIFTH MEETING

Saturday, 8th July, at 10 a.m.

Chairman : Mr. Tobias WEAVER

The CHAIRMAN opened the meeting, and announced that the discussion of reports on educational developments would be continued.

REPORT FROM ISRAEL

Mr. BEN-YEHUDA (*Israel*) presented his country's report on educational developments in 1949-1950, and then replied to questions from Messrs. CALO (*Italy*), ANSARY (*Afghanistan*), ERWIN (*United States*), DUPONT-WILLEMIN (*Guatemala*), CONDEVAUX (*France*), DE ALBA (*Mexico*) and FLORES (*Philippines*), and Miss MORTISHED (*I.L.O.*).

Primary education covered an eight-year period (a nine-year one for children entering school at the age of five), but the last two years of this period really belonged to secondary education. Higher education covered a four-year period.

Emergency courses had been organised in the normal schools for primary masters and kindergarten mistresses.

Singing was compulsory, and was taught for two hours a week, in primary schools. It was also taught in secondary schools.

The government paid all the expenses of the Arab schools, but only 25 per cent of those of Jewish schools, where the remaining 75 per cent was the responsibility of the municipalities and educational committees. It was hoped to apply such a system later to the Arab schools.

The technical school at Haifa was a school of advanced training, where students obtained engineering diplomas in various branches.

The schoolchildren came from countries with different languages. For two weeks after their arrival in the country, the teacher spoke to them in their own language, and then in Hebrew. The children were not grouped in class according to language. After three or four months, they knew Hebrew.

Milk was distributed to all children, either free or at the expense of the parents. Hot meals were also served, but not yet universally, owing to lack of premises. The organisation of hot meals had been made possible largely through the aid of American associations, and of " Adassah ", an association of Jewish women.

Education was free and compulsory for the young persons between the ages of fourteen and eighteen who had not yet completed their primary studies, either because they left school before it became compulsory to take the primary certificate, or because they had not completed the primary course in their country of origin. Such young persons went to schools for young workers, where as a rule instruction was given in the evenings. Day courses could be followed with the employer's consent. Lessons covered fifteen to seventeen hours a week, or roughly three hours a day for five days a week. Non-essential subjects were omitted ; young persons learn faster than children, and mastered in two hours what their juniors needed five hours to learn. Lessons were given in the buildings of other schools. Employers were obliged to enrol their young employees for these courses, just as families were obliged to send their children. Such courses were followed by non-compulsory vocational courses.

The network of normal schools had been enlarged, and the cost of their tuition reduced by between I. £ 30 and I. £ 40.

The teaching of modern languages was very important. The country having been placed under a British mandate and many Jews having settled in English-speaking regions, English was the most popular modern language. English and French were usually begun in the sixth primary class, Arabic in secondary schools, or sometimes even in primary schools. In Arab schools, English and French were begun in the sixth primary class. Arab children learned Hebrew also.

Since primary instruction was free, no scholarships were given. The scholarships noted in the report amounted to I. £ 200 annually or up to I. £ 300 occasionally. Social assistance in primary schools was free, but classroom equipment was not so, except for young workers.

Vocational courses for young persons were not compulsory, and the pupils paid for them.

In the educational sphere, there was no ill feeling between Arabs and Jews. The Higher Committee for Arab Schools was composed of Jewish and Arab members.

The Jewish religion was a national religion, the Bible being studied in all Jewish schools, although its interpretation varied according to whether the school was a religious or a lay school ; 25 per cent of Jewish schools were religious schools. All the Arab

schools were religious schools, which sometimes gave rise to problems, as the Arabs might be Moslem, Christian or Druze.

The CHAIRMAN thanked the delegate of Israel for his statement. He then invited the Conference to celebrate the eightieth birthday of Dr. Marie Butts, General Secretary Emeritus of the International Bureau of Education. Dr. Marie Butts, as first General Secretary, had presided over the International Bureau of Education in its earliest stages. Besides being a teacher, linguist, scholar and writer, Dr. Marie Butts was one of the pioneers of international education and had promoted many meetings, including the current Conference, of teachers and educators from all over the world. She possessed the secret of eternal youth and was about to " fly away " to Scotland, where she would celebrate her eightieth birthday, which coincided with the twenty-fifth anniversary of the International Bureau of Education. The Conference would be glad to know that she would return before long in order to prepare for her centenary, which would be held in Geneva. The Chairman was sure that he was interpreting the feelings of the whole Conference in expressing to Dr. Butts the respect, gratitude and affection of all its members.

Miss Butts thanked the Chairman for his compliments, which she feared were exaggerated.

REPORT FROM LUXEMBURG

The CHAIRMAN called upon the delegate of Luxemburg to present his report.

Mr. STEIN (*Luxemburg*) commented on his government's report on educational developments in his country, and replied to questions from Messrs. CHRISTIAENS (*Belgium*) and CONDEVAUX (*France*).

The training of primary school teachers in Luxemburg did not give rise to the same problems as in Belgium, as there were only public schools in Luxemburg. As in Belgium, however, there were two currents of opinion : some people desired to maintain existing teacher's training colleges, and others desired them to be abolished. It was the teachers themselves, however, who, in large majority, had asked for a change to general training, followed by one or two years of in-service training. The question of prestige was responsible to a large extent, and also perhaps the salary question.

It was a long-standing custom for prospective teachers to begin their studies in *lycées*, stay three years, and then go on to teacher's colleges. In the future, primary teachers would be recruited only after graduation from a *lycée*.

The question of keeping new teachers in public schools did not arise in Luxemburg, since it was not possible for them to transfer from public to private schools. However, the fact that the government awarded scholarships showed that it was completely aware of the difficulties of recruitment.

In the matter of training secondary teachers, for at least thirty years Luxemburg had been requiring prospective secondary school teachers to take a two-year period of training, which corresponded approximately to the "adjoints d'enseignement" in France. On finishing this training, they took a practical examination in the presence of an inspector. The speaker was glad to see that France was now more or less preparing to follow this procedure.

Mr. ELVIN (*Unesco*) wished to express his appreciation of the work of the Conference and to assure Professor Piaget, Director of the International Bureau of Education, that he and his colleagues at Unesco would do their utmost to continue the close collaboration which had always linked Unesco and the Bureau.

The delegate of Israel had warned the Conference that universal education did not necessarily lead to peace, while the Director-General of Unesco had shown that ignorance might lead to war. Unesco was very aware that what counted was not so much that each child attend school, but that he receive intelligent instruction there.

He was very interested to learn during these meetings how difficult it was to know which characteristics of education in other countries should be followed. What mattered was that only the best characteristics should be chosen. As the great poet, T.S. Eliot, remarked, one should first of all realize what one had in common and in what respects one differed.

The CHAIRMAN, after thanking Mr. Elvin for his helpful remarks, announced that Monday morning would be devoted to the discussion of reports from Sweden, Switzerland and, if possible, Mexico, while the afternoon would be given over to a general discussion of item 3 on the agenda : the teaching of handicrafts in secondary schools.

(The Meeting rose at 1.10 p.m.)

SIXTH MEETING

Monday, 10th July, at 10 a.m.

Chairman : Mr. Tobias WEAVER

The CHAIRMAN opened the meeting, and announced that the discussion of the reports on educational developments in the different countries would be continued.

REPORT FROM SWEDEN

Mr. KAERRE (*Sweden*) presented his report on educational progress in his country, and then replied to questions from Messrs. ANSARY (*Afghanistan*), LATIF (*Pakistan*), AKRAWI (*Unesco*), SETHI (*India*), BOREL (*Switzerland*), GAL (*France*), GOLDSMITH (*United Kingdom*) and FLORES (*Philippines*).

The secondary course was divided into two cycles, a lower and a higher cycle, the first extending from 11 to 16 years or from 13 to 17 years and the second from to 16 to 19 or 20 years, according to whether the pupil had previously taken the modern" examination at the end of the lower cycle. In" Sweden, the matriculation examination was only taken at the age of 19 or 20 years, but was compulsory for those who wished to continue their studies at a university or enter a technical or commercial college.

Two commissions had been appointed to solve the problem of the lack of school teachers and buildings. For primary schools, the problem was less serious, as far as teachers were concerned, as new training colleges for primary teachers had been established. The problem was, however, much more difficult in secondary education. At the present time, primary teachers were recruited, at a salary somewhat higher than that of other primary teachers, to teach mainly mathematics, physics and biology in secondary schools. Other measures were also being considered, such as the reduction of university courses for those preparing to teach in primary schools.

It was difficult to determine which part of the budget was financed by the central government, and which part by the

local authorities. Generally speaking, all salaries were paid by the State, except for those of certain communal secondary teachers, which were paid by the municipal authorities, as were also expenses for buildings, equipment and furniture of all secondary schools.

Lower secondary schools for commercial or domestic studies or technical training had existed for several years. These schools were mainly municipal schools and not State schools. The technical and commercial *gymnasia* were under the Board of Vocational Education.

In secondary schools which specialised in vocational training, practical subjects to a certain extent replaced theoretical studies.

The existing tendency towards centralisation originally aimed at a reduction of expenses, but was now mainly inspired by a desire to raise the standard of teaching, especially in the higher classes.

The birthrate had ceased to increase since 1945 ; in any case, the authorities tended to encourage, rather than to discourage, its increase.

In secondary schools, that is to say up to the age of 16 or 17 years, the curriculum included up to eleven theoretical subjects, while that of the *gymnasia* only contained eight, with a further subject which could be taken if desired.

In primary schools about ten hours of practical work, inclusive of gymnastics, was given per week, but the majority of the lessons were theoretical.

Sweden was very proud of the scholarship system which had been initiated in 1945. The hindrance which had previously existed to obtaining a secondary education had thus been removed. At the present time, all boarders received scholarships which covered their expenses, partially or entirely, according to their private means. The total sum at present granted in scholarships amounted to approximately ten million Swedish crowns. The fact that about one third of the pupils did not pay for their schooling might be taken as an indication of the number which received scholarships.

Latin was going to be taught for four or five years in the classical sections of the secondary schools. French was now optional for the pupils in the two top classes of the secondary schools. As a result of the educational reform which reduced the number of lessons allowed for each subject, the number of French lessons would also be decreased, but a more important place would still be given to French than it had had before 1933. The possibility of replacing the study of German by the study of French as the second language in some schools, had also been discussed lately.

The question of deciding upon the maximum number of

pupils to be admitted to the comprehensive schools was a very difficult one. At the present time, secondary schools sometimes contained 900 to 1,000 pupils, but an attempt was being made to reduce their numbers to 500 or 600.

Mr. AKRAWI (*Unesco*) answered Mr. Latif's suggestions regarding the publication of a study of school administration and statistics. Unesco had sent out a questionnaire on educational systems in the various countries. Up to now, Unesco had received only five answers and he took advantage of this opportunity to ask the members present at the Conference to urge their governments to forward their answers as quickly as possible.

REPORT FROM SWITZERLAND

Mr. BOREL (*Switzerland*) next discussed the report on educational developments in Switzerland, and answered questions from the CHAIRMAN, and Messrs. CONDEVAUX (*France*), DE TELEPNEF (*Honduras and Nicaragua*) and ANSARY (*Afghanistan*).

Concerning the question of handwriting, he specified that there were several handwritings taught in Switzerland. So far, the problem of unifying handwritings had been solved in German Switzerland, where a "Guide for the Teaching of Calligraphy" had been published recently.

In the French-speaking cantons, much had already been attempted in this field. Often "script" was used during the first years at school and was followed by a simplified and more rapid English writing. The question had not been completely solved, however, and experiment continued.

The projected reform in the matter of simplification of handwriting was a matter concerning only the German-speaking cantons, where an inquiry was now under way in schools.

Domestic science had long been taught in primary schools. Introduced first in the towns, it had reached the countryside gradually. When the pupils were too few in number to justify expenses for the equipment used in domestic science, children of several regions were assembled for instruction. In the sparsely populated cantons, the custom was to set up domestic science centres ; twenty-two centres of this kind had already been established, for example, in Valais. Classes in this subject are held for one five-hour period weekly (8 a.m. to 1 p.m. or 2 to 7 p.m.).

The complementary agricultural training was not directly connected with primary education, which it followed. It took the form of courses given to young men and women, of 15 to 17 or 18 years, who had finished their regular schooling, and was given in the winter only. General instruction was given in addition.

In Switzerland, where there are four national languages, it would be difficult to introduce systematic instruction in Spanish and courses on the culture of Latin American countries, without overloading the pupils. The subject was confined to pupils of commercial schools, the Federal Polytechnic and the universities, who planned to work in, or in connection with, a Spanish-speaking country.

The Federal Polytechnic had extended to its sections preparing mechanical and electrical engineers the system of on-the-job training which the students had to take in workshops or factories. This had involved the creation of a special service.

Report from Mexico

Mr. de Alba (*Mexico*) discussed educational developments in his country and answered questions from Messrs. de Telepnef (*Honduras and Nicaragua*), and Dupont-Willemin (*Guatemala*), and Miss McMurry (*United States*).

The problem of teacher shortage existed in Mexico, as everywhere else. For rural education, a special appeal had been sent to persons holding no university degrees or teachers' college diplomas, but ready to give help. They had recruited personnel also among the teachers of "domiciliary" schools. Scholarships had been distributed widely also.

The budget of the Ministry of Education constituted 17 per cent of the national budget. The campaign against illiteracy had been very successful, after the initial interest in the subject which Mr. Torres Bodet had aroused. The present system was slightly different from that used in the beginning. No longer was an appeal made only to people's goodwill, but the day schools also transferred a part of their budget to the night schools.

Schooling was compulsory over a period of six years. Secondary education, which is extending more and more, is free. It was hoped to set up a comprehensive school carrying pupils to their eighteenth year.

Good results had been obtained by the material used for the campaign against illiteracy. The textbooks had been prepared by experts in folklore and language. The writing used for the Indians had a basic spelling. Teachers knowing the Spanish and Indian languages were employed.

The Chairman announced that the afternoon meeting would be devoted to item 3 on the agenda : the teaching of handicrafts in secondary schools, and, time allowing, to presenting further national reports. On Tuesday, the delegates of the United States, Afghanistan, Australia and Austria would give their reports. He

was glad to announce to the Conference that the Government of Greece had agreed to be represented at this Conference. The delegate would be Mr. Jean Papayannis, member of the Permanent Delegation of Greece in Geneva.

(The Meeting rose at 1.20 p.m.)

SEVENTH MEETING

Monday, 10th July, at 3 p.m.

Chairman : Mr. Tobias WEAVER

THE TEACHING OF HANDICRAFTS IN SECONDARY SCHOOLS

GENERAL DISCUSSION

The CHAIRMAN declared the meeting open, and asked Mr. Roger Gal to present his report on item 3 on the agenda, the teaching of handicrafts in secondary schools.

Mr. GAL (*France*) gave his report, which had been distributed to the delegates, and wished on this occasion to thank the Ministries of Education for their answers to the inquiry undertaken by the International Bureau of Education. He rendered homage to Miss Maddalena Pagano, a member of the International Bureau of Education staff, who had been responsible for analysing the replies to the inquiry and for drafting the general survey for the publication.

Mr. AKRAWI (*Unesco*) regretted that in their reports almost all the Members considered it normal that handicrafts for girls should consist always in needlework and domestic science and for boys in wood-work and iron-work, etc. It would be advisable for most of this work to be given without distinction of sex and for the workshops to become an integral part of the school. Practical courses in secondary schools should be recognised for admission to universities, as was the case already in the United States.

Mr. CHRISTIAENS (*Belgium*) agreed entirely with the admirable account of the rapporteur and believed that Belgium's experience might be of help in this discussion.

Since 1914 Belgium had included practical instruction in primary schools and it had always been accepted readily. It was only in 1936 or 1937, however, that practical courses were introduced in secondary education as part of the two branches of classical and modern humanities. It was only in 1946 that

a third group was introduced, known at present under the name of " section appliquée ". In this section eight to ten hours a week were given to handicrafts and the workhops already appeared much more professional than those of the other sections.

As to the social value of handicrafts, it should be pointed out that the immediate reaction to the introduction of this " section appliquée " was a protest on the part of the pupils in the other sections. Subsequently, however, they realised that their friends in the " section appliquée " were not worse off and that, on the contrary, they produced something tangible and useful. Thus a feeling of sympathy sprang up between the future intellectuals and the future technicians. It was also noted that there was a far greater spirit of solidarity and co-operation in the " section appliquée " than in the other two sections.

Mr. LATIF (*Pakistan*) observed that although, for various reasons, Pakistan had not replied to the inquiry regarding handicrafts, his country was nevertheless extremely interested in that subject. It attached great importance to domestic science, which had been introduced into all girls' secondary schools (there was even a question of opening a domestic science college for girls in the near future). Pakistan also had some remarkable schools for industrial arts, particularly the one in Lahore. Although convinced of the importance of introducing handicrafts into enducation, Mr. Latif would prefer the Conference's recommendations to be simple and easy to carry out, in order that school curricula might not be overloaded.

Mr. PIAGET (*I.B.E.*) was convinced of the advantages of handicrafts and of the need to go back to the origin of thought, which was action. He thought it necessary, however, to draw attention to the danger of simply adding a few further hours for handicrafts to the other lessons. Two objections to that course should in particular be borne in mind : 1) the curricula were already overloaded ; 2) time-tables would be interrupted. The problem was above all one of a harmonious integration of the handicraft classes. By themselves, handicrafts might be lacking in interest. They should be closely integrated with other subjects, using hand skills in the fields of physics, chemistry and biology, for example, to make apparatus, terrariums, etc. But the problem, considered in that light, presupposed the use of activity methods. A second fundamental question was that of training handicraft teachers, who must not only be technicians, but also educators and men trained in scientific methods.

Mr. CALO (*Italy*) explained why his country had not replied to the questionnaire. The Fascist Regime had introduced handicrafts into secondary education, but the need to improvise everything had constituted a considerable hindrance, and the

Republic had considered it useless to continue efforts in that direction. Handicrafts already figured in the primary curricula, and produced good results. Italy would doubtless take up this question some day. Handicrafts were not incompatible with classical studies. Would it not be easier to study the Georgics if the student were an ardent gardener ? Creative skills should develop intelligence. Kerschenstein has said that when an artisan worked not only for money but also for love of his work, he went beyond the personal to the ideal. Moreover, and this was not of minor importance, handicrafts contributed to physical development. Our concept of culture had changed. It was no longer a matter merely of ideas and of skills, but of ability. Thus culture became work, and work, culture. To work with the hands was also to understand the value of manual labour and, consequently, to lose class consciousness. To change nature, man was obliged to work. Therefore schools should teach pupils to work. Among other subjects, they should find a place in their curricula for handicrafts.

Mr. GOLDSMITH (*United Kingdom*) expressed his complete agreement with the rapporteur in regard to the value of handicrafts in the whole growth of children. The use of many different raw materials in handicrafts should be not only a discipline but also a delight. Children who were academically gifted often had to forego the satisfaction which handicrafts offered, because they specialised in academic subjects too early at the secondary stage. The growth and discovery of a child's aptitudes and interests depended upon opportunities to use all his abilities in a wide variety of subjects, materials, and methods of learning.

Mr. BEN-YEHUDI (*Israel*) praised the rapporteur warmly and wished to ask him a few questions. He was particularly interested in projects and would like to know what was the experience in France in regard to handicrafts during the last years of secondary education. In the United States, he had studied and admired the equal treatment accorded to handicrafts in relationship to the other subjects. The workshops in certain schools were real factories. It had been possible to give this importance to handicrafts without overloading the curriculum. If one considered handicrafts as a simple method, that is to say, as a practical complement to instruction, one needed no additional hours. If however, on the contrary, they were considered as a novelty in an ethical and social sense, there arose the serious question whether to increase the hours of class work or to sacrifice other courses. He would be glad to know how the rapporteur planned to solve these problems.

Miss BANNAN (*Australia*) stated that in considering the question of handwork in secondary schools, the lessons learned from its use in infants' classes should not be forgotten. Research had shown that the hand-eye co-ordination developed by a well chosen handwork programme facilitated the learning of other more academic skills, as for example, reading and writing. The "extension of experience", moreover, involved in such a programme, provided the stimulus for extensive language activities. The handicraft programme, furthermore, had a particular value for handicapped pupils ; its therapeutic importance in, for example, the treatment of speech defects, was outstanding.

She went on to speak in support of point 4 of Mr. Gal's statement, concerning the desirability of giving girls the same opportunities as boys of learning handicrafts. She did not feel that any clear line could be drawn between work specially suited to men and that particulary suited to women, and she cited experiments carried out in this connection in Australia. In all types of primary and secondary training colleges, handicrafts played an important role and were taught to both men and women students. Experience showed that after the purely intellectual work of the universities, creative work corresponded to a definite need. In conclusion she stressed the fact that, while the acquisition of certain skills was obviously necessary, the handwork programme should never degenerate into a mere making of separate objects. Where such a degeneration occurred, decoration tended to supplant functional beauty in the objects produced, and the necessary relationship between manual training and the more academic subjects was lost.

Mr. KAERRE (*Sweden*) observed that much useful information was contained in the publications on handicrafts issued by Unesco and the International Bureau of Education ; he thought, however, that a distinction should be made between the different types of handicrafts. Pages 16 and onwards of the French text sometimes referred to domestic science, and child care, as well as sewing, as handicrafts reserved for girls ; Sweden replied only to the question on sewing, as domestic science and child care were taught separately from handicrafts. On page 126 of the reply from the Swedish Ministry of Education, it was stated that "the value of the series of wooden models is increased by the fact that it contains objects that can be used in the home or at school." It was considered a duty in Sweden always to teach pupils to make useful objects.

Mr. BOREL (*Switzerland*) recalled that Mr. Piaget had emphasised the link that existed between handicrafts and activity methods. The problem of handicrafts was related to the

conception of the man of tomorrow : modern man was no longer an intellectual but a man of action who knew how to work with other people. On the other hand, however, should a new subject be introduced (with all the difficulties involved — changes of schedule, tools, etc.), or would it not be more advisable to train teachers differently, so that they would learn the value of handicrafts ? In examinations given to prospective teachers, could not handicrafts hold an important place ? The term " handicrafts " expresses the idea of making objects ; it seemed to him more accurate to say " manual activities ".

Mr. ANSARY (*Afghanistan*) wished to explain that the answer of his government had not arrived in time for discussion. The authorities in Afghanistan attached great importance to the question of including handicrafts in secondary education curricula. Needlework and domestic science were already compulsory subjects for girls.

Mr. GAL (*France*), in his capacity of rapporteur, wished to thank the delegates for their suggestions, which would help him to draw up the draft recommendation which would be submitted to the vote of the Conference. He would endeavour to answer the questions of principle which had been raised during the general discussion.

He declared himself in agreement with regard to the value of handicrafts for the education of retarded children but believed that this question went beyond the realm of the present discussion.

He noted two different opinions regarding the role of handicrafts. There were those who believed that handicrafts should be closely integrated with the curriculum as a whole, being taught by teachers of other subjects. On the other hand, there was the view that the pupil should receive serious and complete instruction in the subject. Therefore, one should attempt to reconcile the two points of view.

As to the question whether the subject should be followed by an examination, he wondered if it would not be sufficient for the pupil to prove that he had attended the entire course, without, however, being obliged to take the usual type of examination.

In the matter of syllabus, there was no need to enforce anything extensive, but at least nothing should be excluded, and pupils should be left the choice of all possible methods of expression, depending on their abilities. Should a distinction be made between boys' and girl's work ? As far as needs were concerned, some specialisation was necessary, but as far as educational value was involved, it was not easy to see how any field of action could be closed to either sex, if it proved attractive.

There was a clear distinction to be made between professional handicrafts as such and educational handicrafts. Generally speaking, the pedagogical and psychological principles of an activity school must be used : the pupil's interest must be stimulated, he must be given a certain freedom of choice, and the handicrafts proposed should be useful, so as to give them a *raison d'être*. To some extent, handicrafts should be considered as a separate branch, but the constant aim kept of integrating them into the other subjects. Aesthetic training must always be borne in mind, as well as the formation of taste and the habit of working as a team. Two dangers must be avoided : wasting time, and faulty attitudes which might later interfere with professional training.

The financial question clearly still remained to be solved and was of outstanding importance for many countries. The possibility must be studied of selling the articles made by the children in order at least partially to cover expenses. They could also be given to the children, or to the school, or to elementary or infant schools, thus providing a sound link between the different stages of education.

There were two possible solutions to the problem of teaching staff : should new specialists be trained, or should teachers of other subjects be used for the purpose ? In this experimental phase, either solution might well be adopted.

International exchanges and local, national and international exhibitions could be very useful and constituted an admirable means of stimulating competition and improvement.

In conclusion, he thought the draft recommendation should be drawn up on a very realistic but flexible basis, so as to serve the widest possible purpose.

The CHAIRMAN thanked the rapporteur, Mr. Gal, for having so brilliantly presented his subject. The Conference was awaiting Draft Recommendation No. 30, incorporating the various suggestions, with great interest. He also thanked Miss Pagano for the magnificent task she had accomplished in preparing the volume containing the results of the inquiry undertaken by the International Bureau of Education.

(The Meeting rose at 7 p. m.)

EIGHTH MEETING

Tuesday, 11th July, at 10 a.m.

Chairmen : Messrs. WEAVER and WESSELINGS

The CHAIRMAN declared the meeting open, and announced that the discussion of reports on educational developments would be continued.

Mr. CONDEVAUX (*France*) agreed with the wish of the delegate of Sweden that a table of the educational organisation in each country be placed before the delegates.

REPORT FROM THE UNITED STATES

Mr. ERWIN (*United States*) presented for his delegation the report on educational developments in his country. He and Mr. GOLDTHORPE then replied to questions from Messrs. ANSARY (*Afghanistan*), CONDEVAUX (*France*), FLORES (*Philippines*), LATIF (*Pakistan*), KAERRE (*Sweden*), JOHANNES (*Indonesia*), SETHI (*India*), WESSELINGS (*Netherlands*), AKRAWI (*Unesco*) and DE ALBA (*Mexico*), and the CHAIRMAN.

Under the Southern Regional Council, graduate and professional school students sent to universities in other southern states paid the same fees as they would have paid in their own state, the difference between actual cost and tuition fees being paid from state funds.

The status of foreign students and teachers had improved since the Smith-Mundt Act of 1948. They had now the right to work for pay either in universities or even in industry or agriculture. Almost one third of the 26,000 foreign students living in the United States were thus earning a part of their university expenses.

Compulsory education requirements varied in the different states, but it generally began at seven and continued until fourteen or fifteen. Primary education usually lasted for eight years, and was followed by four years' secondary (high school) education ; in some states it included six years above the kindergarten, followed by six years in secondary school.

High school courses were extremely varied. In some schools there were as many as between fifty and a hundred different courses. Pupils were required to take sixteen of them in order to qualify for a diploma. Certain courses were compulsory, but pupils might also choose from a wide range of subjects, according to their tastes and professional ambitions. In primary schools, on the other hand, classes were generally the same throughout the country.

As to audio-visual aids, filmstrips and films were used, especially in geography and biology teaching. Diagrams, drawings and records were also employed.

In the past the financial support of American schools had usually depended on local taxation of property. The economic and financial crisis of the 30's, however, had shown that it was impossible to prepare a programme fitted to the 20th century on the basis of taxation in force since the 18th century. Educational finances had therefore regularly been transferred to the states' treasuries. In order that schools might not lose their freedom, however, it was necessary to maintain a certain balance. At the present time, local communities were called upon to make at least a minimum effort, and if possible to do more, to solve their own problems.

The "national groups of citizens" were associations of laymen whose members volunteered to devote themselves to the raising of educational standards by arousing public interest in educational questions.

The controversy between religious groups, which weakened efforts to obtain federal funds, was not a question of an emotional reaction, but was rather a difference of opinion. The reason why the controversy was of a religious nature was because many of the private schools were denominational.

The controversy between Cardinal Spellman and Mrs. Roosevelt regarding federal funds for private and state schools had been almost forgotten.

There was a national association of teachers which was open to all, the teachers being divided into groups, according to interests, subjects and positions.

"Community Colleges" were reserved for students, young people or adults, who had taken certificates at higher secondary schools ; as in colleges and universities, the teachers had taken a master of arts degree or a doctorate ; the course lasted two years and corresponded to the first two years in the regular colleges ; no degree was given, but a certificate which was generally recognised by the regular colleges.

A quarter or a third of the pupils in the secondary schools went on to college and the university ; the proportion varied from state to state, but it was very high in California where

people took a great interest in education and where material conditions were better than in other states. The army, air force and navy supplied the necessary funds for the carrying out of scientific research in fields of interest to them, either polytechnic, or medical sciences or physics, usually upon the basis of contacts with the universities.

In the early summer of 1950, a reorganisation plan to incorporate the U.S. Office of Education in the Department of Health, Education and Security was submitted.

Roughly 75 per cent of children between fourteen and eighteen years of age attended high schools.

Low salaries were the main reason why a large number of certificated teachers gave up teaching and sought employment in other fields. The rapid increase in salaries would doubtless put an end to this difficulty.

St. John's College in Annapolis (Maryland) had retained its curriculum based on the study of the classics. Mr. Robert Hutchins had helped promote this plan.

(*Mr. Wesselings took the chair.*)

Report from Afghanistan

Mr. Ansary (*Afghanistan*) presented the report on educational developments in his country, and then replied to questions from Mr. Sethi (*India*), Miss McMurry (*United States*), Messrs. Goldthorpe (*United States*), Brunschvig (*Monaco*) and Mehran (*Persia*).

The three years of primary schooling given in sparsely populated rural areas was based on a simplified programme. In more populous towns and areas, the usual six-year curriculum was in effect.

There were primary and secondary training colleges. The former admitted pupils who had completed six years' primary schooling. The course was one of three years, only the last of which included pedagogy and psychology ; it was now considered insufficient, and in 1949-1950 an additional two-year course had been drawn up which included general and professional education. In the secondary training colleges, professional training was given in the last two years only. The question was under discussion of turning these colleges into boarding schools offering a general course leading up to the university, and of creating a university education department.

Selection of candidates for training colleges was on the basis of school achievement, the first five places being automatically reserved for the five best. Other candidates were required to pass an entrance examination.

The present training colleges were scarcely able to supply enough teachers for the six-year urban primary schools. In isolated rural areas, the mosques served as schools.

Although compulsory education from six to fourteen, without distinction of sex, was provided for in the Constitution, only 3,000 girls attended school, and almost all of these were in the capital.

In order to meet the teacher shortage in rural areas, it would be advisable to organise short teacher-training courses.

With a view to promoting a programme of technical education, a physics teacher had been sent on mission to the United States to recruit teachers and collect teaching materials.

The report of the Unesco educational mission to Afghanistan was now being studied, and some of its recommendations had already been put into force.

Mr. AKRAWI (*Unesco*) remarked, in connection with the question raised by the delegate of India about the effectiveness of the proposed three-year rural primary school, that it is not necessary to reduce the number of years of the small village school from six to three in order to economise in the number of teachers. Many countries have one-room, one-teacher rural schools with ten to forty children each and where one teacher teaches simultaneously the programmes of all six or seven classes. Mr. Akrawi had observed this problem in six or seven countries of the Middle East and believed that all these countries would benefit greatly from training rural teachers in the art of teaching a number of classes simultaneously.

(The Meeting rose at 1.10 p.m.)

NINTH MEETING

Tuesday, 11th July, at 3 p.m.

Chairman : Mr. Tobias WEAVER

The CHAIRMAN opened the meeting, and asked the delegate of Australia to present his report on educational developments in his country.

REPORT FROM AUSTRALIA

Mr. WEEDEN (*Australia*) presented his report and replied to questions from Messrs. LATIF (*Pakistan*), SETHI (*India*), GOLDSMITH (*United Kindgdom*), ANSARY (*Afghanistan*), BOREL (*Switzerland*), CONDEVAUX (*France*) and GOLDTHORPE (*United States*).

The Current Affairs Bulletins are published twenty-six times a year with the object of dealing with matters of current national or international interest, and they are aimed at the average reader. It had seemed necessary to maintain a fairly high standard, but despite this, the Bulletin had now about 50,000 subscribers as against the 10,000 originally foreseen, which seemed to indicate that the standard was not too high.

The anti-illiteracy campaign being prepared in the Northern Territory would be based on two centres with visual equipment, and facilities for music and handicrafts, and a library. It was also intended to prepare two travelling vans with similar facilities, for the benefit of isolated settlements. They would be accompanied by two or three educators, still to be trained, who would act as consultants.

The selection of teachers was normally made by competitive examination at the end of secondary schooling, followed by two or five years of training. Those who took the five-year course first received a background to teaching methods at the university, and then a year of training at a training college. Those who took the two-year course, did so at training college.

In order to meet the recruitment problem, always acute on account of the higher salaries paid in industry or commerce, the Queensland authorities were proposing to advance the

training by two years, during the school period, in the hope that students would then study for one or two years at a training college.

Training of native races was still in an experimental stage. In the Northern Territory, an attempt was being made to set up schools in some thirty different localities, which would maintain the same teaching standards as schools for the white population, while teaching different curricula. In the other states, the natives received their teaching in the public schools.

The Commonwealth Government hoped to be able to extend the system of scholarships for Asian students in connection with the Technical Aid Programme. This system had begun experimentally, but since it had proved successful, it was hoped that it might be possible to carry it still further.

The question of teaching for children who were not among the most gifted and who would leave school at fifteen raised too many problems to be dealt with here. The authorities were trying to devise curricula which would interest such children as far as possible in secondary education, and give them adequate academic training without stifling their interests.

The reason why children between the ages of five and eight developed more rapidly physically in the western regions of New South Wales than in the rest of the country was probably due to the natural selection operating in that desert region.

Australia had carried out two experiments in scholarships for university students. The first in 1943 included a competitive examination and a means test. The Reconstruction Training Scheme instituted after the war required no means test and was based on a less severe examination. These systems had both advantages and disadvantages, and the present system therefore did away with the means test, but permitted a cost-of-living allowance to be granted to the student.

The CHAIRMAN thanked the delegate of Australia for his clear report, and announced that the Conference would pass on to item 2 of the agenda : the introduction to mathematics in primary schools. He called upon the rapporteur, Mr. Calo.

INTRODUCTION TO MATHEMATICS IN PRIMARY SCHOOLS

GENERAL DISCUSSION

Mr. CALO (*Italy*) presented his report on the introduction to mathematics in primary schools.

The CHAIRMAN thanked the rapporteur for his excellent statement.

Mr. BEN-YEHUDA (*Israel*) wished to add a few words to

Mr. Calo's report. During his career as a mathematics master, he had come up against many problems, two of which seemed to him fundamental : the first was of a professional, and the second of a political nature.

In regard to the first problem, he believed that the main aim of the introduction to mathematics was to develop a child's accurate reasoning, suiting the difficulties to his psychological development. There were three stages in a child's development : in the first he acquired a concept of number, in the second a concept of space and of measurement, and in the third he became able to make generalisations and to discover mathematical laws. Although many books discussed the first two of these stages, almost nothing had been written on the third. He proposed to set up a course which would contain the basic concepts of arithmetic, geometry and algebra.

The second problem, that of a political nature, touched upon the problem of immigrants. He had noticed that their knowledge of mathematics was not the same as that of the other children, whatever their age and the class attended. As an educator, he could not see the answer to this problem. The concept of number and the knowledge of mathematics were common to all people; he therefore proposed that there be set up a common international programme for the eight years of primary instruction in mathematics. He asked, moreover, 1) that the Conference adopt a recommendation to this effect ; 2) that it instruct a commission of three to six members to work out this programme and present it at the next Conference.

Mr. CONDEVAUX (*France*) believed that the idea of inability to do mathematics was often a sign of snobbishness, specially on the part of certain pupils. Neither did he believe in the inability to learn mathematics, for in this subject one had to bring together two propositions, sometimes connected by a process of reasoning, in order to reach the evident conclusion. It was not possible to deny the evidence ; had Descartes not said that commonsense is the most prevalent thing in the world ? Mr. Calo had asked that a parallel be drawn between the cardinal and ordinal numbers, since so many figures were read in everyday life. The butcher did not weigh 1 kilogramme four times, but read on his scales the figure " 4 " placed between the figure " 3 " and the figure " 5 ". As to interchanging in multiplication, the example $2/5 \times 3$ and $3 \times 2/5$ seemed poorly chosen, for a fraction in itself had no meaning — it had to be a fraction of something, and $3 \times 2/5$ was the symbol of the operation which consisted in taking a fraction of a number, whereas $2/5 \times 3$ was a simple multiplication. Mr. Calo preferred quantitative geometry (the reckoning of areas and volumes), without, however,

omitting the study of forms. It seemed that the study of parallels and perpendiculars, for instance, was of primary importance. The relation between the metric system and numeration concerned countries using the metric system. They had a concrete concept of tens, through one franc pieces. Teaching was therefore concrete. To acquire the ability to compute became very important, for it was essental in current living. To possess this ability was a saving of time and effort. How could one create this ability and at what age ? The delegate from Israel had recommended the setting up of preliminary instruction in arithmetic, geometry and algebra. It seemed difficult to introduce preliminary algebraic studies in France because of the division between pupils who ended their studies at fourteen and those who continued them at a secondary school from the age of eleven years ; such an introduction was desirable for pupils of the second category, but useless for pupils of the first, who would only have studied the most difficult part of algebra.

Mr. CHRISTIAENS (*Belgium*) stressed the fact that the methods of introduction to mathematics in primary schools should be functional ; when pupils failed, it was simply because they had not managed to *grasp* the problem. In the past, syllabuses had been drawn up *a priori* by groups of experts ; since experiments in the field of education at the present time showed the difficulties which the child met at every age, Mr. Christiaens considered that advantage should be taken of such experiments to work out syllabuses. All division except division by two had been eliminated from Belgian elementary schools. A university commission of four members was carrying out research to ascertain the ages at which the different grades of division were comprehensible to children. In future, syllabuses should not be drawn up on such an *a priori* basis.

Contrary to the opinion expressed by the representative of Israel, Mr. Christiaens thought that the introduction of algebra in primary schools was entirely premature ; experience in Belgium had shown entirely negative results. Nor did he agree with the proposal to prepare standard syllabuses for different countries of the world, for national, regional and even local differences must be borne in mind. Furthermore, children did not reach maturity at the same age in every country.

Mr. PIAGET (*I.B.E.*) had been carrying out research for fifteen years on children's reactions to mathematics. He had found that understanding of mathematics by children was not a matter of aptitude ; thus it was incorrect to believe that failure in mathematics indicated a lack of aptitude. There was, however, close correlation between mathematical aptitude and general

intelligence. It was therefore difficult to understand why so many children of normal intelligence failed in mathematics. The results of his psychological research might be summed up under three headings :

1) Mathematical operation was a function of action. Consequently, intuitive presentation was not enough, a child must operate on his own, the manual operation preparing for the mental one. A distinction had to be made, however, for one could not choose an action indiscriminately. The child had to start with very simple actions, such as arranging, stacking, putting objects together and separating them, making them correspond, etc., and these actions should be interesting. Action implied experimenting by the child with some type of material and the subsequent interpretation by mathematical operations. He should experiment with his own gestures, coordinating them. This type of action was indispensable in the beginning and remained necessary during all primary instruction. Therefore, he agreed completely with the proposal of the delegate of Israel regarding preliminary instruction in arithmetic, algebra and geometry. Preliminary steps to algebra, for instance, would be a training in mechanical operations which could then be translated into an algebraic form. It was certain that certain algebraic operations appearing difficult to adolescents in the form of algebraic symbolism were of understandable logic to children of eight (for instance, minus multiplied by minus equals plus).

2) In all realms of mathematics, the qualitative should precede the numerical (for instance, it was involved in logical operations in building the concept of cardinal and ordinal numbers). In the field of algebra, the same was true. One could save much time in primary schools by beginning with logical, non-numerical problems.

3) There was an obvious parallel between the creation of arithmetical concepts and that of elementary geometrical concepts. The child performed these two types of operation in close harmony ; for instance, numbers and measures, proportions, etc. Mr. Piaget had even seen children reach an understanding of proportions before that concept had been taught them at school. It was therefore necessary to examine the psychological facts, and a close collaboration between educators and psycho-genetic research workers was desirable.

Mr. GOLDSMITH (*United Kingdom*) agreed fully with the idea outlined by Mr. Calo in the conclusions to his report, where he stated that the teaching of mathematics should become a living subject related to a child's life and active interests and closely

allied with other school subjects. This implied that the teaching of arithmetic in primary schools should aim at far more than mere computation. A child should " learn by doing "; he should think and talk about his mathematical notions. The delegate from Israel had proposed the working out of a programme of mathematics which would be common to all countries. This programme could not be used, however, in Great Britain, for example, where the metric system was not in use. The British measures were related by the numbers 12, 3, 22, 10 and 8, which added to a child's difficulties but gave him rich experience of number relationships ; the metric measures, on the other hand, were related only by the multiples of 10. Mr. Calo's statement implied also that sums should not merely be presented to a child, but that he should get the data himself. In the past, too much time had been lost in abstract computations. That raised the question of the age at which mathematical instruction should begin. Algebra, for example, was not really understood : even when children of thirteen worked out simultaneous and quadratic equations, they had still no idea of the basis on which the superstructure of such " black magic " had been built. It would be better to let younger children use more of their time in making their own investigations in the field of generalised arithmetic.

Mr. Gal (*France*) wondered whether the teaching of mathematics should be inflicted on all children in the same doses and at the same rate. Would it not be better to give more individual instruction ?

Mr. Flores (*Philippines*) thought that Mr. Calo's idea of the need to link the teaching of mathematics closely to real life had not been sufficiently stressed in the body of the report. He would like the moral aspect of this teaching to be more clearly emphasised.

Mr. Calo (*Italy*), having thanked the delegates for their active share in the general discussion, began by replying to the proposals made by the delegate of Israel. As Mr. Piaget had said, the preliminary study of algebra existed in embryonic form in the introduction to mathematics itself. As to the three types of concepts : number, space and measure, there was a parallelism between the different concepts which coincided and fused. Turning to the proposal to unify syllabuses for all the different countries, he expressed doubts as to the possibility of carrying out such a unification, as differences of all kinds opposed it.

He entirely agreed that mathematics should be a preparation for logical reasoning, but pointed out that the agenda was more concerned with the introduction to mathematics.

He fully shared Mr. Condevaux's disbelief in the alleged existence of inaptitude for mathematics, especially in girls — women teachers, moreover, often taught mathematics at the secondary stage in Italy.

He agreed with Mr. Piaget about the parallelism between ordinals and cardinals. As to the way in which problems should be presented to children, he insisted that, if the formula for multiplying $2/5 \times 3$ corresponded to intuitive reasoning, the same could not be said of the formula $3 \times 2/5$. Problems leading to this type of multiplication should therefore be avoided.

He agreed with the remarks about the metric system ; also about the mechanisation of such reckoning as was absolutely indispensable in daily life, but he pointed out that a child should reach this point by his own explorations.

He approved of Mr. Christiaens' observations about functional methods, adding that if his own report had not gone into details about the question of syllabuses, it was because the elements provided in the replies to the questionnaire were too heterogeneous. Further he accepted the comments on pedagogic research, but he doubted whether the results could constitute a uniform basis for the pupils. Belgium's negative experience in the introduction of algebra only confirmed what was already in the report.

He fully supported Professor Piaget's remarks, as well as those of Mr. Goldsmith, who wanted the teaching of mathematics to be based on a child's experience, so that he should discover the principles for himself.

The question put by Mr. Gal about individualising the teaching of mathematics was rather embarrassing because, so long as the system of fixed classes would not permit of pupils being grouped in each subject according to individual capacity, the problem would probably remain insoluble.

Mr. Calo ended by emphasising, as Mr. Flores had done, that the teaching of mathematics must be applied to the problems of life.

The CHAIRMAN, in the name of the delegates, thanked Professor Calo for the great deal of work represented in drawing up his report, and in his replies to the various points. He also thanked Mr. Mallet of the International Bureau of Education for the excellent work he had done in condensing in the one volume presented to the delegates the voluminous reports received from the different Ministries of Education in reply to the questionnaire on the introduction to mathematics in primary schools.

He recalled that the next morning's meeting would be spent

in discussing the reports on educational developments in Austria, Belgium, Canada, Egypt and the Philippines. In the afternoon, delegates would be asked to vote on Draft Recommendation No. 30 on the teaching of handicrafts in secondary schools. He recommended to delegates who wished to make amendments to transmit them in writing to Mr. Rossello. Drafting amendments should be discussed directly with the rapporteur in order to avoid loss of time.

(The Meeting rose at 7.25 p.m.)

TENTH MEETING

Wednesday, 12th July, 1950, at 10 a.m.

Chairmen : Messrs. WEAVER and MEHRAN

The CHAIRMAN opened the meeting, and asked Mr. Rossello to make an announcement.

Mr. ROSSELLO (*I.B.E.*) reminded delegates that they were authorised for the duration of the Conference to use International Bureau of Education stamps and envelopes. The stamps were overprinted with the seal of the Conference, and were valued by philatelists. He asked delegates not to write their names, however, on the envelopes, as the postal authorities would not then accept them. He asked that such correspondence be left in Room 76.

The CHAIRMAN informed delegates that the English text of the opening speech of Mr. Torres Bodet, Director-General of Unesco, had been distributed. He then called on Dr. Filz, delegate of Austria, to give his report.

REPORT FROM AUSTRIA

Mr. FILZ (*Austria*) commented on the report on educational developments in his country, and then replied to questions from Messrs. ABRAHAM (*France*) and GOLDSMITH (*United Kingdom*), Miss MCMURRY (*United States*), and Mr. HACHEM (*Syria*).

The ninth school year, organised experimentally and including practical vocational training, had been well attended. The results of the experiment were not yet known, as it had been instituted only one year ago.

Headmasters of rural experimental schools could submit to the Ministry recommendations concerning the organisation and curricula of their schools. It was thus possible to give consideration to the particular circumstances of the regions in which these schools were located.

Schools did not organise long study journeys. Some excursions were made into neighbouring areas, but not in any systematic way.

As to the reform of the " maturity " examinations, the choice of the various options had no influence on the studies candidates would subsequently undertake.

The CHAIRMAN thanked the delegate of Austria for his admirable report and the additional explanations he had given. He stressed the importance of the interchange of teachers between Austria and other countries, among them the United Kingdom.

Mr. CALO (*Italy*) paid a tribute to Father Girard, the great Swiss educationist whose centenary was being celebrated that year. He spoke of the theoretical and practical work accomplished by the pedagogue of Fribourg and summarised in his *L'enseignement régulier de la langue maternelle* (orderly teaching of the mother tongue) and his *Cours éducatif de langue maternelle* (educational course in the mother tongue), and of the fundamental place assigned by this Catholic moralist to intelligence, which he regarded as a supreme faculty that should " blossom like a flower ". Mr. Calo also alluded to Father Girard's monitorial system, so rich in educational possibilities, and to his teaching work, of vital importance in the education of the people. Besides his singular merits as an educationist, one had also to admire Father Girard's moral stature. A man with a religious turn of mind, he had been able to reply to the attacks and misunderstanding of his fellow citizens with a heroic silence and exemplary Christian humility. He had been the servant of children, whose spontaneity he respected. In conclusion Mr. Calo referred to yet another aspect of Father Girard's moral and religious personality : his remarkable spirit of tolerance.

Mr. GRANDJEAN (*Switzerland*) thanked Mr. Calo for his kind words concerning the centenary of Father Girard.

REPORT FROM BELGIUM

The CHAIRMAN called on the delegate of Belgium to present his report on educational developments in 1949-1950.

Mr. CHRISTIAENS (*Belgium*) presented his report, emphasising in particular the important modifications made in kindergarten curricula, and then replied to questions from Messrs. ANSARY (*Afghanistan*), WESSELINGS (*Netherlands*), KAERRE (*Sweden*), ABRAHAM (*France*) and STEWART (*Canada*).

Changes in the curricula and methods of nursery-infant schools had not entailed any increase in expense. Curricula were issued by the government, which made them obligatory, of course, in government nursery-infant schools, but they were

merely in the nature of suggestions, and of minimal requirements for the continued awards of grants-in-aid, so far as the communal and free schools (almost all Catholic) were concerned. It was also worthy of note that such minimal requirements concerned only subject matter, the choice of methods resting entirely with each separate school authority.

The free schools, in fact, drew up their own curricula, which differed from the official curricula, however, only in form.

As to the training of teachers for nursery-infant schools, the error of 1936 — when primary curricula were modified before teaching personnel were trained to execute such modifications — had fortunately been avoided. For some years now, nursery-infant mistresses had been prepared for the reform, either individually or at their training colleges.

Regarding appointments to the primary inspectorate, candidates were required to be not less than thirty-five years of age, to have taught for not less than fifteen years, and to pass written, oral and practical examinations. The oral examination covered psychology, methods, old and modern writers and works on education, school legislation, etc.

Secondary education — the *enseignement moyen* — began at twelve years of age and ended at eighteen. Courses in religion were given at this level, and were obligatory, but parents could choose ethics instead of religion for their children.

As regards grammar, the government had published suggestions concerning the unification of terminology. Teaching methods in secondary schools conformed to the ideals of the activity school. There was no direct transfer of the Decroly method, but an attempt had been made to take the best from the new methods.

Homework was not allowed in the first two secondary classes, except for preparing notes.

Primary teachers earned some 52,000 francs a year, nursery-infant mistresses nine-tenths of this amount. For purposes of comparison, the commencing salary of a clerk in administration was some 40,000 francs a year.

(Mr. Mehran took the chair.)

The CHAIRMAN called on the delegate of Canada to present his report.

REPORT FROM CANADA

Mr. STEWART (*Canada*) discussed the educational developments in his country, then answered questions from Messrs. ANSARY (*Afghanistan*), SETHI (*India*), ERWIN (*United States*), CONDEVAUX (*France*) and DE ALBA (*Mexico*).

Although Canada had two national languages, practices in the study of the two languages was not uniform. French was used in certain provinces (Quebec, New Brunswick, and Ontario), but is not used in other provinces such as Saskatchewan, British Columbia, etc. There was therefore no general procedure regarding the teaching of French and English. In Quebec, the English schools taught French beginning with the fifth year, and the French schools followed the same custom in English teaching. Elsewhere, French was studied in the seventh, eighth or ninth years according to the extent of the probability of the pupils being in contact with the French language later.

Universities were public and free in the sense that whoever could pay the fees and pass the examinations was admitted. In the four western provinces and in New Brunswick there were provincial state-aided universities ; in other provinces, universities received government grants for certain purposes.

A national committee had made recommendations regarding the status of teachers. Primary teachers attended training colleges for one year, after finishing their secondary education. Secondary teachers held university diplomas. The length of training was recommended to be two years, and the courses of university type. Care should be given to the selection of teachers, particularly as to personality. An attempt should be made to give fewer courses in theory, and more opportunity for discussion and practice, greater attention being given to the personal growth of the teacher than to the increase of his knowledge of methods. The courses given to the crippled children of " Variety Village " were not uniform, but adapted to each case. There were other special schools for blind children, deaf children, etc.

Total provincial and local expenditure for public education was $ 290,000,000. In the provincial budgets, this expenditure followed that for highways, and was close to that for health and social welfare.

In order to help students, scholarships were granted and fees reduced. There were a considerable number of research scholarships.

Kindergartens were free in most cities, and were planned for children of five or six years old. They received subsidies from the towns and the communes. The greatest obstacle to the establishment of kindergartens in large number was the lack of buildings.

In British Columbia and Ontario, thirteen years of schooling were available, twelve years in the other provinces. There was no general movement in favour of thirteen years of schooling, or of junior colleges.

Certain subjects (history, geography and elementary civics),

taught separately in the past, had been grouped under the general title of social studies. Ways of conserving the country's natural resources, including its forests, had also formed the subject of certain studies. The study of social questions was begun in a very elementary way in the second primary class.

Teaching which might be called " the problem of alcohol " had been carried out experimentally in the schools of British Columbia for two years. It was given in close connection with hygiene and science courses. In Nova-Scotia, a special department had recently been created in the Ministry to deal with this particular problem.

The teaching of French and English in certain regions of Canada depended on the number of pupils who spoke those languages and on their needs. This teaching was not compulsory.

For some years, public opinion had been tending towards the idea of federal assistance for the schools. This tendency was supported in particular by the national teachers' association. There was on the other hand no question of creating a Federal Ministry of Education, since education is an entrenched right of the provincial governments under the Canadian constitution.

The CHAIRMAN thanked the delegate of Canada for his excellent report and for his useful and interesting replies. He proposed that the presentation of reports on educational developments be continued at the afternoon session ; and that the Conference should then proceed to discuss and to vote on Draft Recommendation No. 30 on the teaching of handicrafts in secondary schools.

(The Meeting rose at 1 p.m.)

ELEVENTH MEETING

Wednesday, 12th July, 1950, at 3 p.m.

Chairman : Mr. Tobias WEAVER

The CHAIRMAN opened the meeting, and called on the delegate of Egypt to present his report.

REPORT FROM EGYPT

Mr. AWAD Bey (*Egypt*) presented the report on educational developments in his country and replied to questions from Messrs. LATIF (*Pakistan*) and ANSARY (*Afghanistan*), Miss MCMURRY (*United States*) and Messrs. ABRAHAM (*France*), HACHEM (*Syria*) and AKRAWI (*Unesco*).

The difference between elementary and primary schools lay in the fact that the former were above all for teaching reading, writing and arithmetic. The programme of the primary schools was wider and prepared the pupils for secondary schooling. Another characteristic of primary education was the study of a foreign language. Several elementary schools had recently been turned into primary schools. In those cases, the staff were given the same advantages as those teaching in ordinary schools. It was one of the chief tasks of the government to speed up this process.

It was easy to pass from primary to secondary education when schools were organised accordingly. The qualifications required were that pupils should have completed the whole cycle of primary education.

The main changes brought about by the Education Act of 1949 had been clearly explained in the previous year's report included in the International Yearbook of Education.

The proportion of illiterates in Egypt at the present time was probably less than 75 per cent of the population.

The " Koran schools " gave a much more complete religious instruction than that given in the mosques, which was based solely on reciting the Koran.

Since the duration of secondary studies for girls had been

reduced, a much larger number of them would probably be able to enter the universities.

Besides the Fouad I University, there was now also the new Ibrahim University in Cairo. Ibrahim University would offer a greater choice of studies.

There was no specified maximum number of class hours for school teachers and professors. When there was an increase, a compensation was probably offered to the teacher.

There was no system of scholarships in secondary education, but exemption from school fees might also include boarding expenses and therefore pupils' living expenses. In higher education, it was very difficult to obtain a scholarship, but there were certain welfare foundations which gave discreet assistance to needy students.

Despite the increased number of institutions where French was taught as the principal foreign language, English still came first in the majority of schools.

The popular university increased the general culture of the people, but awarded no diplomas. Except for courses in domestic science, which met in the morning, the courses were generally given in the afternoon.

Private schools helped in the task of instructing the people, with the assistance of private funds.

The CHAIRMAN congratulated the delegate from Egypt on his fine report and on the magnificent task accomplished by his country.

REPORT FROM THE PHILIPPINES

Mr. FLORES (*Philippines*) discussed the report on educational developments in his country, and answered questions from Messrs. ERWIN (*United States*) and KAERRE (*Sweden*).

The Republic of the Philippines was indebted to American teachers for help in the field of education.

The problem of teacher shortage became more acute in 1948, the year in which the President now in office asked that all children should attend school. Additional teachers' colleges had to be set up, and private schools began to train teachers. Soon 24,000 student teachers would be ready to accept posts, but there would still be a large proportion of unqualified teachers. School directors, inspectors and administrators were also being trained. Twice as many teachers were recruited after salaries had been increased. The duration of studies was four years and an attempt was being made to attain the same level in state and private schools.

From 1940 onwards, in order to avoid refusing pupils, the

three-hour class lasting only half a day was introduced. In this manner, the number of pupils was doubled. The system was not very satisfactory, however, since it lowered the level of studies and had injured the health of the teachers. There had been submitted to the government a law requiring the re-establishment of the system in force before the war (a complete day), and the prolongation of studies for one year, which would mean seven years of schooling.

The CHAIRMAN thanked the delegate of the Philippines for his report and gave Mr. Rossello the volume which Mr. Flores had presented to him, a work on school organisation in the Philippines which would enrich the library of the International Bureau of Education.

Mr. ROSSELLO (*I.B.E.*) thanked Mr. Flores for the gift which symbolised to him the ever closer bonds which would link the Republic of the Philippines and the International Bureau of Education.

VOTE ON DRAFT RECOMMENDATION NO. 30 CONCERNING THE TEACHING OF HANDICRAFTS IN SECONDARY SCHOOLS

The CHAIRMAN announced that a vote would now be taken on Draft Recommendation No. 30 concerning the teaching of handicrafts in secondary schools, the text of which ran as follows :

TEXT OF DRAFT RECOMMENDATION NO. 30

The International Conference on Public Education,

Convened at Geneva by the United Nations Educational, Scientific and Cultural Organisation and the International Bureau of Education, and being assembled on the sixth July for its thirteenth session, adopts on..... the following recommendation :

The Conference,

Considering that the progress of educational science shows the necessity of appealing to all the potentialities of children's and adolescents' growth in order to obtain a complete and harmonious development of personality ;

That this is a valid principle for the whole period of an individual's development and not only for the period of primary schooling ;

That educational craft activities are indispensable for correcting the effects on young people of a secondary training which is often too theoretic, giving them a greater sense of

reality, drawing on their inner need to be active and giving them respect for work in all its aspects ;

That handicrafts constitute not only a valuable element in the moral, social and aesthetic training of children and adolescents, but also an inexhaustible source of interests and that they furnish means of expression and demonstration, and of making instruction concrete and coherent, to the enrichment of education as a whole ;

That handicrafts are especially valuable as a means of getting to know an adolescent's personality and of revealing his aptitudes, and thus of facilitating his school and vocational guidance ;

Submits to the Ministries of Education of the various countries the following recommendation :

1) That handicrafts be included wherever possible in the curricula of the different sections, classical sections not excepted, of all secondary schools, as :

a) obligatory subject in the lower classes,
b) optional subject at the very least in the upper classes,
c) and that where they are optional, students be recommended to take them ;

2) That the time devoted to handicrafts be sufficient to avoid a dissipation of interest, and that wherever they constitute a separate subject, such time be grouped in a way permitting reasonable continuity of work ;

3) That the handicrafts syllabus comprise not merely the customary activities (woodwork, metalwork, dressmaking, domestic science, cardboard work, etc.), but also other activities such as bookbinding, weaving, leather work, ceramics, pottery, and modelling, and gardening, animal husbandry and agriculture ;

4) That, in selecting the crafts to be offered, due regard be paid to the resources, needs and facilities peculiar to each local, regional and national environment ;

5) That greater opportunity be given pupils of either sex to practise crafts hitherto reserved for one sex ;

6) That the teaching methods employed make appeal to an adolescent's creative freedom, and give him the possibility of making complete and useful objects suited to his interests and age, and his individual abilities and educational needs ;

7) That educational handicrafts be clearly distinguished from vocational training, but at the same time not fail to inculcate correct habits of workmanship ;

8) That teachers responsible for handicrafts endeavour to

obtain work from their pupils, which is not only useful but also beautiful, and thus find occasion to develop their artistic taste ;

9) That handicrafts be done as far as possible as a group activity, so as to give pupils a habit of work in common and a sense of solidarity ;

10) That secondary handicrafts classes, wherever feasible, undertake to make things useful for the school, or simple teaching materials for the infant or primary school, and thus help to create a relationship and a spirit of cooperation between the different levels of education ;

11) That handicrafts teachers establish close contact with the teachers of other subjects, so as to give them concrete, material support and to ensure the inclusion of handicrafts in whatever projects are adopted ;

12) That work cards be published for handicrafts, and books for guiding pupils and informing teachers of the method of the subject ;

13) That every effort be made to provide every school with an adequately built and equipped workshop, and also, if possible, with a piece of land for gardening and agriculture ;

14) That handicrafts workshops fully meet the particular needs of the subject, and the demands of school hygiene, and that tools and equipment be suitable to adolescent physique ;

15) That materials for handicrafts be supplied free, wherever possible ;

16) That the subject be taught by persons qualified pedagogically as well as technically ;

17) That introductory and further training courses be organised periodically, in order to keep teachers of the subject informed of current methods and improvements ;

18) That national or international exhibitions, such as the Permanent Exhibition of the International Bureau of Education, be organised, and that educational authorities facilitate visits to other schools at home and abroad ;

19) That the professional training of teachers for ordinary secondary subjects include an introduction to craft work ;

20) That the establishment of handicrafts teachers' associations be facilitated, and invited to assist in the organisation of introductory and refresher courses, and in the steady improvement of the way in which the subject is taught.

The CHAIRMAN proposed that, for the sake of brevity, each point be examined as to substance, leaving the final drafting and translation to the sub-committee composed of Messrs. Rossello (*International Bureau of Education*), Gal (*France*) and Anderson (*United Kingdom*). He then called on Mr. Gal, rapporteur.

Preamble :

Mr. GAL (*France*) called the attention of delegates to the amendment proposed by the delegations of the United States, the United Kingdom and the Philippines, regarding paragraph 4 of the preamble, the text of which had been distributed. He accepted the substance of the amendment, but proposed the following form for the French text :

« Que les travaux manuels constituent un précieux élément pour la formation morale, sociale et esthétique de l'enfant,

« Qu'ils fournissent aussi aux élèves une source inépuisable d'intérêts et des moyens importants d'expression personnelle, d'observation et de découverte et qu'ils apportent aux autres disciplines un moyen de concrétisation et de coordination des enseignements. »

This change affected only the French text, the English amendment remaining as before.

(The preamble, due account being taken of the amendment, and the form proposed by Mr. Gal for the French text, was adopted.)

Article 1

Mr. GAL (*France*) proposed that sub-paragraphs b) and c) of Article 1 should be made into a single sub-paragraph, by adding the word " and " after sub-paragraph b).

(This amendment was adopted.)

Mr. KAERRE (*Sweden*) thought that Article 1 of the recommendation went too far and that it would be impossible to apply it in Sweden. He was in complete agreement as far as the lower classes were concerned, but, as regards the others, their syllabuses were already too full and he did not think it possible to recommend the introduction of handicraft classes, even if they were made optional. The most that could be done would be to organize practical work outside school hours, as was already contemplated in Sweden for physical training, sports, etc.

Mr. GIMSING (*Denmark*) doubted whether it was possible to introduce handicrafts to the extent recommended in Article 1.

Mr. GAL (*France*) pointed out that there was nothing compulsory about the recommendation, but that the door should be left open for countries which desired to go further and had even asked to do so. Moreover, the amendment proposed by the Italian delegation made it possible to reduce or condense lessons in other subjects, so that time-tables would not be overloaded.

Mr. CALO (*Italy*) explained that the purpose of his amendment was to secure a better balance between the different subjects in secondary school syllabuses, which were generally too full ; he considered that a reduction might be desirable.

Mr. KAERRE (*Sweden*) returned to the point which he had already made and suggested the deletion of the words " classical sections not excepted ", as well as sub-paragraph c) of Article 1. He added that in Sweden, secondary school pupils were required to make the additional effort of studying French and German.

The CHAIRMAN asked if the Conference and the Rapporteur would agree to the deletion of the words " classical sections not excepted ", which would enable the text to be more widely interpreted.

Mr. GAL (*France*) accepted the latter amendment, pointing out that the introduction of handicrafts into the secondary school proper was the most important point of the whole recommendation.

(This amendment was adopted.)

Article 2

Mr. CALO (*Italy*) proposed an amendment as *Article 2b* : " That the syllabuses of other subjects be reduced wherever necessary and rationally concentrated, so as to make possible the introduction of handicrafts without overloading the time-tables ".

Mr. ABRAHAM (*France*) agreed in principle with Mr. Calo, but did not consider it opportune to talk of concentrating syllabuses in connection with handicrafts. He wondered whether it would not be wise to reject this amendment.

Mr. GAL (*France*) spoke in support of this view.

(The text of this article was adopted.)

Article 3

(The text of this article was adopted on condition that in the English text the words " animal husbandry and agriculture " be amended to read " animal husbandry or agriculture ".)

Articles 4, 5, 6, 7 and 8

(The text of these five articles was adopted without discussion, subject to drafting changes in the English translation.)

Article 9

After a discussion between Messrs. GAL (*France*), ANDERSON (*United Kingdom*) and KAERRE (*Sweden*), it was proposed that the words " as far as possible " be replaced by " where appropriate ".

(This amendment was adopted.)

Article 10

(This article was adopted without discussion.)

Mr. GAL (*France*) recalled that the delegations of the United States, the United Kingdom and the Philippines had proposed the inclusion of an article 10 (b) with the following text : " That the possibility of ' earning while learning ' may be considered, provided that the utmost care be taken that useful labour is not exploited, and that the educational development remain the central purpose. "

Mr. CHRISTIAENS (*Belgium*) thought such an article would meet with violent opposition.

Mr. ABRAHAM (*France*) did not think it desirable to develop a taste for making money ; he suggested that it should be the class, the school or a school co-operative which should benefit from the collective work. He hoped that a compromise formula might be found.

Mr. FLORES (*Philippines*) explained the idea underlying the preparation of the amendment. It was necessary to answer the objections of many parents who regretted that handicrafts lessons had no practical aim. He believed that it would be unfortunate not to take this legitimate anxiety into account.

After discussion between Messrs. ABRAHAM (*France*), GAL (*France*) and GRANDJEAN (*Switzerland*), Mr. BEN-YEHUDA (*Israel*) proposed that the amendment adding article 10 (b) be not adopted, and that each country follow its own initiative in this matter.

(This proposal was adopted.)

Article 11

Mr. GAL (*France*) proposed to delete the words : " and to ensure the inclusion of handicrafts in whatever projects are adopted ".

(This amendment was adopted.)

Article 12

(A change of form affecting only the English text was adopted.)

Article 13

(This article was adopted without discussion.)

Article 14

Mr. GAL (*France*) proposed the following text : " That the equipment and tools used take account of the age, health and physical capacity of the pupils ".

(This amendment was adopted.)

Articles 15, 16 and 17

(These articles were adopted without discussion.)

Article 18

Mr. FLORES (*Philippines*) proposed to add to the text of this article, the words : " and that exchanges of craft work be encouraged between the schools of different countries ".

Mr. GAL (*France*) was in favour of accepting this amendment.

The CHAIRMAN proposed to leave to the sub-committee the task of incorporating this text either in article 18 or in article 20.

(This amendment was adopted.)

Article 19

Mr. KAERRE (*Sweden*) had doubts about the advisability of this recommendation.

Mr. ABRAHAM (*France*) proposed the following wording : " That the attention of teachers of general subjects in secondary education be drawn to the interest of carrying out handicrafts. "

Mr. KAERRE (*Sweden*) agreed to this suggestion.

Mr. CALO (*Italy*) was anxious that emphasis should be placed

on the instruction to be given to secondary school staff already teaching, so as to convince them of the importance of educational handicrafts.

Mr. GRANDJEAN (*Switzerland*) considered that it was wrong to expect a specialist teacher of Latin, for example, to teach handicrafts. The result could only be harm to the cause of handicrafts.

Mr. ABRAHAM (*France*) pointed out that his proposed text covered both the present and the future.

Mr. BEN-YEHUDA (*Israel*) was of the opinion that there were two different points to be considered : 1) the preparation of handicraft teachers as such ; 2) the question of the teachers of other subjects, called on to give instruction in handicrafts.

After a discussion between Messrs. ANDERSON (*United Kingdom*), KAERRE (*Sweden*), ABRAHAM (*France*), GAL (*France*), BEN-YEHUDA (*Israel*) and CALO (*Italy*), Mr. AKRAWI (*Unesco*) proposed that the words " as far as possible " be inserted in the text suggested by Mr. Abraham.

Mr. BEN-YEHUDA (*Israel*) seconded this proposal.

The CHAIRMAN asked the delegates whether they would agree to leave the final drafting to Messrs. Abraham, Gal, Calo, Ben-Yehuda and Anderson.

(This proposal was adopted.)

Article 20

(This article was adopted without discussion.)

The CHAIRMAN asked the Conference whether Draft Recommendation No. 30 could be considered as accepted as a whole, with the addition of the adopted amendments, and drafting changes.

(Draft Recommendation No. 30 on the teaching of handicrafts in secondary schools was adopted.)

The CHAIRMAN announced that the following day they would discuss the reports on educational developments in Denmark, France and, if possible, Turkey.

(The Meeting rose at 7 p.m.)

TWELFTH MEETING

Thursday, 13th July, 1950, at 10 a.m.

Chairman : Mr. Tobias WEAVER

The CHAIRMAN opened the meeting, and called on the delegate of Denmark to present his report.

REPORT FROM DENMARK

Mr. GIMSING (*Denmark*) commented on educational developments in his country during the school year 1949-1950, and answered questions from Messrs. PICOT (*Switzerland*), ERWIN (*United States*), CONDEVAUX (*France*), WEEDEN (*Australia*) and KAERRE (*Sweden*).

He was not acquainted with the reactions of the public regarding the unified intermediate school. It was difficult to solve the problem, because of the different abilities of the pupils.

The rural regions were divided into school districts. The distance between home and school must not exceed 3.5 kilometres for older pupils and 2.5 for the small children. In the case of greater distances, the municipal authorities loaned bicycles or organised a free bus service.

The curriculum was identical in rural and city schools. Teachers recruited were generally eighteen years old or more. Their curriculum included courses in Danish, history, geography and one or two foreign languages. The title of primary teacher enabled one to teach in intermediate schools but, generally, such teachers followed additional courses in English, French and German, provided under the auspices of the Danish secondary teachers' college in Copenhagen.

The evening courses for secondary teachers were a very interesting experiment, the results of which were not yet known but would be communicated in a future report.

As to the percentage of pupils going on from primary to secondary schools, the figure of 50 per cent represented the average for the country as a whole. This percentage was certainly higher in Copenhagen. Generally speaking, it was

possible to admit all the pupils who wished to enter secondary school, but entrance examinations were required.

Report from Turkey

Mr. Erginsav (*Turkey*) presented the report on educational developments in his country, then answered questions from Messrs. Latif (*Pakistan*), Abraham (*France*) and Hachem (*Syria*).

To combat illiteracy, evening courses were being set up. Illiteracy was decreasing and, according to the 1945 figures, 40 per cent of the male population knew how to read and write. Unfortunately, the corresonding percentage of women was lower.

There were 184 trade schools in the large towns. In rural regions or small towns, this instruction was given by visiting teachers in courses extending over a period of six months or one year.

Turkey had three universities and the attendance in 1950 was 20,000. The universities were independent, but received State subsidies. The poorer students were exempted from the payment of fees, although these were low.

Report from France

The Chairman called on the delegate of France to present his report on educational developments in the school year 1949-1950.

Mr. Abraham (*France*) presented and commented on his report, after which, with the help of Messrs. Condevaux and Gal, he replied to questions from Messrs. Calo (*Italy*), Christiaens (*Belgium*), Ansary (*Afghanistan*), de Alba (*Mexico*), Kaerre (*Sweden*), Grandjean (*Switzerland*), Sethi (*India*) and Dupont-Willemin (*Guatemala*).

The National Centre for Scientific Research was not restricted to strictly scientific subjects, but also dealt with what one might call human sciences (economic, social, philosophical, etc.). No difference whatever was made between the groups in allocating subsidies.

The Langevin-Wallon Committee had given its name to the present proposal for reform, based on its own work, and with reference to demographic conditions.

There was no intention of sacrificing the teaching of general subjects to specialisation in connection with the proposal to create an economic science matriculation, it was merely a question of putting the emphasis on the profession it was proposed to follow.

In the theorical part of secondary teachers' studies, room was made for educational psychology with a view to preparing for the practical stage.

Maladjusted children were also compelled to attend school. Teachers specially trained in an *ad hoc* training college, recently established, were now available.

The government contributed on a large scale to school cinemas ; a cinema commission had been set up to improve the quality of apparatus and films. The financial support represented two-thirds of the cost of the apparatus.

The total scholarships (not to be confused with study-loans) represented between 100,000 and 120,000 francs. They were intended for the student's upkeep and were awarded on the basis of school and university record, and not as the result of special examinations.

Primary teachers were trained at the teachers' training colleges and recruited in two different ways : a) at the age of fifteen, that is to say, after five years of secondary school, the future teacher entered the training school for a four-year course, of which three years were preparation for baccalaureate, and one was professional training ; b) pupils who had passed their baccalaureate spent two years at the training college.

The Vichy Government had suppressed the training colleges for political reasons ; they were re-opened after the liberation.

The language used for teaching in France's overseas territories was French ; nevertheless, the making of contact with the natives raised the problem of the so-called vernacular tongues. This problem was being studied at the present time.

The problem of the equivalence between the American B.A. and the French baccalaureate was very delicate, as were all questions of equivalence ; Unesco had instructed the International Universities Bureau to study this problem ; it was desirable that a central index of equivalences should be drawn up by Unesco. The B.A. entitled the holder to attend French universities, and the baccalaureate should make the American universities accessible to foreign students, just as liberal French doctrine considered as equivalent the final secondary examinations of all countries with approximately the same cultural level.

France was aware of her close relationship with the Latin American countries, and had made every effort to increase intellectual exchanges with them ; she was bringing to France students whose task it was to teach French, and there were a large number of French institutes, " lycées ", etc., in the Latin-American countries such as Haiti. Relations with these countries were in general the province of the General Directorate for Cultural Relations in the Ministry for Foreign Affairs, and of the University Service for Relations with Foreign Countries, which acts as the liaison service between that Department and the Department of the Ministry for National Education.

It was a very exceptional thing in France for a pupil to take the same class twice ; those incapable of coming up to the standard were usually directed elsewhere. Failures in the July examination for the baccalaureate could be made up during the October session. Admittedly, the present system, under which many pupils failed in their first attempt at that examination, might not be perfect, but for the time being, no deep-seated reform had been considered acceptable.

Future secondary school teachers doing their probationary course received a salary.

The Ministry of National Education, having discovered in 1948 that there was a difference in the grammatical terms used in primary and secondary education, had published a common form of terminology in the Bulletin of National Education for November 1949, and were studying the question of uniform grammatical teaching at the different school stages.

Supervisors in a boarding school were persons in charge of the supervision of the boarders outside of school hours (recreation etc.) ; an attempt was being made to associate them with the children's education by turning them into guides and counsellors.

The " new classes " at the present time covered the first cycle of secondary teaching and affected some 25,000 pupils. A report on the results obtained in all these schools would shortly be published by the Centre for Educational Documentation. The results appeared to be positive, despite certain doubts about discipline and proper appreciation of teamwork. Apart from that, however, the value of activity methods, of co-ordination of culture and of work planned in a way which made it possible to give particular attention to one child or to a group of children, was generally recognized. The study of environment had made considerable progress. Collective working could not always be applied to all children, since some of them were very individualistic, but even these benefited from the experience of working together, both with and for the others.

The CHAIRMAN announced that the afternoon meeting would be devoted to the reports from Guatemala and Syria and to a study of Draft Recommendation No. 31 concerning the introduction to mathematics in primary schools.

(The Meeting rose at 1 p.m.)

THIRTEENTH MEETING

Thursday, 13th July, at 3 p.m.

Chairmen : Messrs. MEHRAN and WEAVER

The CHAIRMAN opened the meeting, and called on the delegate of Guatemala to present his report.

REPORT FROM GUATEMALA

Mr. DUPONT-WILLEMIN (*Guatemala*) commented on the report on educational developments in Guatemala and answered questions from Messrs. DE TELEPNEF (*Honduras* and *Nicaragua*), ERWIN (*United States*) and GOLDSMITH (*United Kingdom*).

The " travelling missions ", of which there were five in Guatemala, had four members : a school teacher, an agricultural expert, an army officer and a medical student (last semester). Their principal task was to instruct the population in agriculture and hygiene, and to develop national consciousness.

Article 81 of the Constitution required that a minimum of instruction be accessible to each individual. A recommendation providing compulsory education was being studied, for it had been considered opportune to carry out certain preliminary experiments before making the requirement general. On the other hand, it would be too early to enforce compulsory education before the country's needs in teachers and school buildings were satisfied. According to the 1947 statistics, a third of the children attended school.

The " rural centres " contained the elements of schools, each being composed of a teacher trained in a rural normal school, and his assistants. In these rural centres, the population was taught to read and to write and was given instruction corresponding to the level of the third primary grade.

An attempt was being made to combat illiteracy. The method of mutual assistance had produced interesting results in this field.

The CHAIRMAN thanked the delegate of Guatemala for his very interesting report and for the additional information he had furnished.

The CHAIRMAN then called on the delegate of Syria and requested him to present his report on educational developments in his country.

REPORT FROM SYRIA

Mr. HACHEM (*Syria*) discussed his report, adding some new points which were not included, and then answering questions from Messrs. ABRAHAM (*France*), LATIF (*Pakistan*), DE TELEPNEF (*Honduras* and *Nicaragua*), and KAERRE (*Sweden*).

There were two principal factors underlying the shortening of the curriculum of secondary schools (six years instead of seven). First, it had been noticed that the teaching of philosophy often made sceptics of the pupils, although it developed logic and a critical turn of mind. For this reason, while the teaching of logic and psychology had been retained in the programme, metaphysics had been completely eliminated and courses in ethics shortened. Secondly, there was a desire to make the Syrian curricula more like those of the other Arab countries.

The cultural level of the students who passed the baccalaureate in a single session, according to the new system, is not lower than when secondary studies required seven years. In any case, in two years school curricula would be re-examined.

The cultural missions would be extended, and therefore a central office for cultural relations with other countries had been established, within the framework of the recommendations of Unesco and of the Cultural Committee of the Arab League.

Syria had recruited an Austrian teacher of physical education.

In secondary education, students were allowed to repeat classes and examinations.

The CHAIRMAN thanked the delegate of Syria for his excellent report and for his exact answers to the questions which had been asked.

(Mr. Weaver took the Chair.)

VOTE ON DRAFT RECOMMENDATION No. 31 CONCERNING THE INTRODUCTION TO MATHEMATICS IN PRIMARY SCHOOLS

The CHAIRMAN announced that Draft Recommendation No. 31 on the introduction to mathematics in primary schools would be submitted to the vote, the text being as follows :

TEXT OF DRAFT RECOMMENDATION No. 31

The International Conference on Public Education,

Convened at Geneva by the United Nations Educational, Scientific and Cultural Organization and the International Bureau of Education, and being assembled on the sixth of July for its thirteenth session, adopts on ....., nineteen hundred and fifty, the following recommendation :

The Conference,

Considering that on the one hand, an introduction to mathematics is one of the essential and universal aspects of training in objective and accurate judgment,

That, on the other hand, the lively activity and the checking of results especially called for by an introduction to mathematics have an intellectual and moral influence which should benefit the study of other subjects,

That a great deal of relevant psychological and educational research is available for use in connection with the teaching of mathematics — one of the most difficult subjects,

Submits to the Ministries of Education in the various countries the following recommendation :

1) That the introduction to mathematics be adapted step by step to the mental processes peculiar to each stage of a child's intellectual development and make full use of all his powers ;

2) That even in the nursery-infant school, a child be given opportunity, through his own activities, to discover the elementary relationships (inclusion, order, correspondence, etc.) of number and space ;

3) That a child be enabled to discover for himself, through suitable activities, the meaning of the arithmetical rules and processes to which he is introduced in the first primary classes, and by the same means to find the answers to those questions which his spontaneous interests provoke him to ask ;

4) That, closely linked with a child's growing knowledge of number, a series of graded activities be arranged to introduce some of the simple spatial forms, their relationships and their measurement, in such a way as to show clearly the relation between arithmetic and geometry ;

5) That special care be taken in all the activities which introduce mathematical operations, to secure a thorough grasp of qualitative and logical relationships, because upon these depend a child's subsequent understanding of the logical *structure* and numerical data involved in all his problems ;

6) That, in the classes that follow, problems involving new ideas (such as time, speed, etc.) be given after further experience calling in each case for the same kind of practical activity and for the realisation of logical concepts ;

7) That the exercise of a child's imagination through his practical activities be accompanied by a steadily increasing demand that he check his results, so that his conquest of each new system of operations or relationships marks a step forward in the accuracy of his reasoning ;

8) That particular attention be paid to a child's verbal expression of the arithmetical operations he performs, and to the use of the correct vocabulary corresponding to each step learnt ;

9) That exercises for developing the skills of arithmetical computation, especially as regards mental arithmetic, be employed only after a child has learnt the meaning of the operations through play and experiment, and has understood the circumstances in which those skills are required ;

10) That methods involving group activities be used to sustain and increase the children's interest, and to give them opportunity for discussing their problems and checking their results ;

11) That, by all means at their disposal, including psychological tests, teachers endeavour systematically to discover where and why their pupils fail, and take steps to overcome the causes of failure in each individual case ;

12) That mathematics be associated as closely as possible with other subjects, and that exercises and problems be taken from every-day life and related to the child's environment, and involve only numbers of reasonable size ;

13) That primary teacher training establishments draw inspiration from this recommendation and prepare their students to put its various suggestions into practice.

Title

Mr. GOLDSMITH (*United Kingdom*) proposed in the name of the drafting committee that the words " primary schools " in the heading be more closely defined by adding " up to the age of 11 or 12 years ".

(This amendment was unanimously adopted.)

Preamble

(The preamble was adopted without discussion.)

Article 1

(The text of this article was adopted without discussion.)

Article 2

Mr. GOLDSMITH (*United Kingdom*) proposed that in the English text the words " inclusion, order, correspondence " be amended to " that the part is contained by the whole, order, similarity ".

(This amendment was adopted.)

Article 3

Mr. CALO (*Italy*) proposed to alter the words " fondée sur les actions préalables " in the French text to " fondée sur des actions préalables ".

(This amendment was adopted.)

Articles 4, 5, 6, 7, 8, 9, 10 and 11

(The text of these articles was adopted without discussion.)

Article 12

Mr. MEHRAN (*Persia*) felt that mathematics teachers sometimes took advantage of the free time of their pupils by giving them too many exercises.

Mr. CALO (*Italy*) pointed out that, by recommending co-ordination with other subjects, Article 12 was precisely directed at avoiding this.

Mr. CHRISTIAENS (*Belgium*) thought that if the Persian delegate's remark referred to excess of homework, it might be opportune to insert an article to this end.

Mr. WEEDEN (*Australia*) thought that a supplementary article dealing with homework had no proper place in a document dealing with mathematics ; this was a problem which affected other subjects as well, and which should be dealt with separately.

Mr. ABRAHAM (*France*) seconded the point of view of the Australian delegate.

Mr. PIAGET (*I.B.E.*) thought it would be useful to draw Unesco's attention to the very important question of overloading syllabuses and to excessive homework. A committee of doctors might give the alarm and expose the serious consequences of this overwork.

Mr. MEHRAN (*Persia*) withdrew his amendment pending separate examination of this question.

(The text of this article was adopted.)

Article 13

The CHAIRMAN asked whether it was really necessary to use the word "recommendation".

Mr. WEEDEN (*Australia*) considered that twelve articles were sufficient, and that Article 13 might well be omitted.

Mr. CONDEVAUX (*France*) proposed the following wording for Article 13 : "That primary teacher training establishments be invited to endorse the principles set out above and to encourage their students to put them into practice."

Mr. WEEDEN (*Australia*) seconded this proposal.

(This amendment was adopted.)

Mr. FLORES (*Philippines*) was anxious that the moral aspects should be emphasised, since it was not enough to know how to add and to become a banker or an owner, but it was important to be an honest banker or owner.

Mr. WEEDEN (*Australia*) agreed with the delegate of the Philippines about the fundamental aspect of this question, which he felt, however, was implicit in the second paragraph of the preamble.

Mr. CALO (*Italy*), in the name of the Conference, thanked Mr. Mallet, of the International Bureau of Education, for his excellent preparatory work and for working out the results of the inquiry conducted by the Bureau. He announced that Professor Piaget was preparing a pamphlet which would appear among the Bureau's publications, and which would give all possible information to teachers who wished to apply the recommendation.

The CHAIRMAN announced that, failing any remarks to the contrary, he would consider the draft recommendation concerning the introduction of mathematics in primary schools as adopted.

(Draft Recommendation No. 31, as amended, was adopted.)

REPORT FROM THE UNITED KINGDOM (SCOTLAND)

Mr. ANDERSON (*United Kingdom*) presented the report on educational developments in Scotland, and answered questions

from Messrs. GRANDJEAN (*Switzerland*), AKRAWI (*Unesco*) and GOLDTHORPE (*United States*).

Those pupils who wished could prolong their studies at the primary school, but not beyond thirteen years ; it was considered that a change of atmosphere is desirable at that age, that children of the same age should be in the same classes, and that at least two years were needed for a teacher to prepare those adolescents who were leaving school at the age of fifteen, for life.

Courses for pupils from twelve to fifteen years of age were divided into four categories : a) commercial courses, supplemented naturally by history and music courses, etc. ; b) technical courses (only for boys) ; c) domestic science courses (only for girls) ; d) general courses (practical courses for those of lower intellectual quality).

The differences between the English and Scottish teaching systems were considerable ; England had a variety of secondary schools, whereas the so-called " public schools " were very rare in Scotland.

Owing to the increase in the number of children at secondary schools, schools covering all stages of teaching had disappeared ; generally speaking there were two types of secondary school : those for pupils from twelve to fifteen, and those for pupils from twelve to eighteen.

Mr. PIAGET (*I.B.E.*) informed the delegates that the Council of the International Bureau of Education would meet on Friday at 9 a.m. Those countries which were not members of the Council could attend as observers.

The CHAIRMAN announced that Friday's session would begin at 10 a.m. with the discussion of the report from England and Wales. He hoped it would also be possible to close the Conference with the morning session.

(The Meeting rose at 6.50 p.m.)

FOURTEENTH MEETING

Friday, 14th July, 1950, at 10 a.m.

Chairmen : Messrs. DE ALBA and WEAVER

The CHAIRMAN opened the meeting by paying homage to France and to the French delegation on the occasion of their national holiday.

Mr. ABRAHAM (*France*) thanked the Chairman for his friendly thought. This holiday recalled the fall of the Bastille ; all the countries represented at the Conference were in process of bringing down another bastion, that of ignorance, and of promoting peace and freedom through the benefits of education.

The CHAIRMAN called on the delegate of the United Kingdom to present his report on educational developments in England and Wales.

REPORT FROM THE UNITED KINGDOM (ENGLAND AND WALES)

Mr. WEAVER (*United Kingdom*) commented on his report and answered questions from Messrs. ERWIN (*United States*), KAERRE (*Sweden*), ABRAHAM (*France*) and ANSARY (*Afghanistan*), and Miss MORTISHED (*I.L.O.*).

The Ministry of Education had established a research team of architects to provide a free advisory service to Local Education Authorities to assist them to design better, cheaper and more beautiful school buildings. The Ministry did not provide standardised plans but encouraged the variety which sprang from the interest, initiative and differing circumstances of the Local Authorities. In order, however, to illustrate the principles of school planning and design (which were described in the Building Bulletins circulated to delegates), the Ministry's architects were designing one secondary school at the request of one authority ; this, however, was not to be taken as a model, but as one example of how the task could be tackled.

For various reasons, but often because there was no other way, some authorities were proposing in their development plans

to provide comprehensive or multilateral secondary schools available to all the children between the ages of eleven and eighteen in a particular neighbourhood.

The Emergency Teacher Training Courses lasted thirteen months instead of the normal two years, and provided a very concentrated teaching syllabus.

The "religious settlement" was the term often used to describe the general lines of the agreement which had been reached between representativs of the Churches, the teachers, the Education Authorities and other interests concerning the respective parts which were to be played in the national educational system by the State, the Authorities and the Churches. A balance of interest had been achieved, by means of the Education Act of 1944, which there was great reluctance to disturb.

The grants at the disposal of public education came from two sources : a) grants from the Ministry to Local Education Authorities, and b) rates (i.e., local property taxes). Of the total amount spent on education, some two-thirds was provided by the State and the remainder by the Local Authorities.

About 25 per cent of all secondary school pupils attended either the grammar (academic) or technical schools.

The Ministry had issued a pamphlet entitled "Youth's Opportunity" to promote discussion of the problems that would be involved in the introduction of County Colleges for part-time continued education after the end of compulsory schooling.

Mr. GOLDSMITH (*United Kingdom*) gave some detailed information about the new "General Certificate Examination" which was replacing the former "School Certificate" and "Higher Certificate". The new examination could not be taken before sixteen years of age, and contrary to the former system, the pupils were to be allowed greater freedom in the choice of subjects. There were three levels : the "Ordinary", the "Advanced", and the "Scholarship".

After thirteen months of Emergency Training, teachers obtained posts on probation for two years, and were obliged to follow a part-time course of study recommended by the college tutors.

The CHAIRMAN thanked the United Kingdom delegation for the useful information they had contributed to the Conference, and invited Mr. Weaver to resume the chair.

(Mr. Tobias Weaver resumed the chair.)

The CHAIRMAN invited the delegates to visit the opening of Unesco's stand on adult education.

Mr. AKRAWI (*Unesco*) presented the contents of this stand.

Mr. PIAGET (*I.B.E.*) thanked the representative of Unesco and congratulated him on the excellent presentation of the material.

CLOSE OF THE CONFERENCE

Mr. ABRAHAM (*France*), speaking as chairman of the Council of the International Bureau of Education, conveyed to delegates the two resolutions formulated by the Council at its morning session. The first of these resolutions, concerning the exchange of educational documents, ran as follows : " The Council authorises its Chairman to draw the attention of delegates of the XIIIth International Conference on Public Education to the value of the Bureau's Service for the Exchange of Educational Documents, and to the advisability of the various national centres of educational documentation, or the Ministries of Education, forwarding to the International Bureau of Education seventy copies of the texts of laws, regulations, curricula, school reports, etc., so that such texts may be available for despatch by the Bureau's Exchange Service to the other national centres ". The second resolution, concerning the textbooks collection of the International Bureau of Education, was as follows : " The Council is pleased to learn that, thanks to Unesco's help, the Collection of School Textbooks of the International Bureau of Education has been increased by 2,000 volumes since 1st July, 1949 ; thanks with especial warmth the United States' Authorities for the interesting collection of American textbooks now being exhibited, and destined ultimately to form part of the Bureau Collection ; authorises its chairman to draw the attention of delegates of the XIIIth International Conference on Public Education to this collection, and to enlist their support in order that their countries may be represented ".

Then, in his capacity of delegate of France, Mr. Abraham thanked the Chairman and Vice-Chairmen of the Conference for the manner in which they had led the discussion; it had proved possible to deal with all the items on the agenda and to give all delegates an opportunity to speak. He thanked also the rapporteurs, the various members of the secretariat of the International Bureau of Education, and Miss Pagano and Mr. Mallet for their work in examining and drawing up the results of the inquiries. He thanked the minute writers, the interpreters, and the Conference secretariat in general. He wished above all, however, to pay homage to the two directors of the International Bureau of Education, Mr. Piaget and Mr. Rossello, the very soul and spirit of this institution. He

stressed with joy the harmonious and creative collaboration between Unesco and the International Bureau of Education, and in conclusion thanked the Genevese authorities, whose cordial and generous hospitality had made the French delegation feel as if at home, on this day of the French national holiday.

Mr. WEEDEN (*Australia*) wished to associate himself with Mr. Abraham's words, speaking for Miss Bannan, the educators of Australia and also of New Zealand. He stressed the great interest of the Conference which was evident in the daily tasks of the International Bureau of Education. He thanked Unesco, the International Bureau of Education, the Chairman, and all the colleagues who had shown him so much friendship.

Mr. GIRALDO-JARAMILLO (*Colombia*) believed that he interpreted the sentiments of the Latin American countries when he thanked the Conference, whose atmosphere had been so cordial and which had obtained such brilliant results. He was grateful to the Chairman, Mr. Weaver, who had carried out his task with tact, skill and energy, as well as to Professors Piaget and Rossello, who were the heart and soul of the International Bureau of Education, to the secretariat of the Conference and particularly to the admirable interpreters, who had helped so much to lighten the delegates' task.

Mr. BEN-YEHUDA (*Israel*) remembered his emotion last year when, trying to take his bearings at the time of the many final speeches at the closing if the Conference, he had felt certain that the words of understanding and friendship came from the heart and were truly sincere. This year, he felt the same emotion and was eager to render homage to the skill, the friendliness and the serenity of the Chairman, who had been able to maintain his spirit of collaboration and kindliness during the Conference. Unable himself to persuade all the members to accept his proposal of a universal programme for the teaching of mathematics, when resolutions on the introduction to mathematics in primary schools were under discussion, he still hoped to see his proposal accepted at some future date. He was returning home carrying the conviction that a conference of educators like this was one of the best methods of bringing out man's best capacities and of contributing to a universal peace.

In conclusion, he thanked Professor Piaget, whose inspiring personality had brought affection and serenity to the Conference, Mr. Rossello and all his collaborators, and the delegates, many of whom had become true friends and whom he asked to meet him at next year's Conference.

Mr. CALO (*Italy*) expressed the gratitude of the Italian

delegation to the Genevese authorities for their hospitality, to the Chairman of the Conference, Mr. Weaver, to the Directors of the International Bureau of Education, Messrs. Piaget and Rossello, as well as to the colleagues of the last named. He stated that the work could not have brought more complete results, both from the technical and the psychological point of view. The reports, discussions and recommendations registered by this Conference brought an important contribution to the cause of education and culture. He was delighted to note that the friendly atmosphere of the preceding years had been renewed, and that during the Conference the delegates had been a real family. He concluded by hoping that this spirit of friendliness could be attained also on a wider scale, among the peoples of the world.

Mr. ERWIN (*United States*) thanked the Chairman for the kindly, impartial and excellent manner in which he had directed the work, aided by his eminent vice-chairmen. He had appreciated also the very active collaboration of Messrs. Piaget, Rossello and Akrawi, who had done so much for the success of the Conference. He was personally grateful to the interpreters, thanks to whom he had been able to follow all the speeches. He considered symbolic the fact that the Conference was ending on the day of the French national holiday, which celebrated that liberty which leads to peace. He would wish that, for everyone in the world, liberty symbolised peace. His country held out its hands to other countries. The culture and life of the United States were a composite of the life and culture of the other countries, of men who had come from all corners of the world. Thus, the Conference interested Americans greatly, since they saw in it an opportunity for the exchange of ideas and an effort for mutual comprehension. Lincoln had said that no nation could exist which was half slave and half free. The same could be said for the world as a whole. If one wished to create peace, it must be created in hearts and minds, and this was the task of education. Tomorrow's history would be written by today's schoolchildren. He expressed his gratitude for having had the privilege of attending this meeting. To him the world had become smaller and more friendly. He thanked the delegates for the opportunity which had been offered him in Geneva to exchange ideas with them and to build lasting friendships.

Mr. LATIF (*Pakistan*) expressed his gratitude and that of his country for all the work accomplished by the Conference. He was grateful as representative of an Asiatic country which, like most regions of that continent, was under-developed. He had been very moved by the speech of the Director-General of Unesco and joined wholeheartedly in his words concerning the

urgency of the fight against illiteracy. Illustrating his remarks, he quoted the words of a Persian poet : " I am only a traveller on foot and weary, while the others are riding swift horses ". He asked for the help and sympathy of the other members of the Conference for all those who were struggling towards the cultural emancipation of their countries.

During this Conference, he had often been bothered by the language problem, which had prevented him from talking as he would have wished with persons such as Messrs. Abraham, Piaget and Rossello. He had promised himself to learn French before the next Conference, and would be grateful to the members who did not know English if they would exert themselves also to that effect.

He expressed his personal gratitude to the Chairman for the friendliness, humour and tact with which he had led the discussions. He hoped that the Conference of 1951 would bring them together again and would enable them to accomplish as useful a task as this year.

Mr. SETHI (*India*) added his approval to all that had been said so brilliantly by Mr. Abraham and with such seriousness and solemnity by Mr. Erwin. He wished to add his word to Mr. Latif's remarks regarding under-developed countries. In conclusion, he expressed his gratitude to the Conference, which had been for him an unbroken sequence of happy days.

Mr. HACHEM (*Syria*) was happy to add his word to all that had been said by the delegates who preceded him. He noted that this year the International Bureau of Education would celebrate its twenty-fifth anniversary. The fact that not all the delegates were present at the ceremony would not prevent the countries they represented from remaining faithful to the mission of this organisation and working hand in hand for greater international understanding.

Mr. PICOT (*Switzerland*) speaking in the name of the Swiss delegation and of the Genevese authorities, was appreciative of the calm atmosphere, sincerity and goodwill which had characterised the work of the Conference. Its labours had enabled delegates to take stock of the problems confronting the authorities of the various countries and had brought them again face to face with those general problems of which we should never lose sight. Among these problems, the most important was and would always be the educational one, that is, the problem of a school more active, more alive, better adapted to children's needs and, above all, more human. We must bridge the gap between our ideal and every-day reality. All countries could join in this task by informing the " Institut des Sciences d'Education " and

the International Bureau of Education of any interesting experiments which they had attempted in the educational field.

He concluded by voicing the wish that the spirit which had reigned among the delegates during the entire International Conference on Public Education might reign also in the important political metings attempting to preserve peace.

Mr. AKRAWI (*Unesco*) stated that Mr. Torres Bodet attached great importance to the existence of sincere collaboration between Unesco and the International Bureau of Education. He had proved this by attending the opening sessions of the last two Conferences. Despite its number 13, the Conference was a success. The fact that this closing day coincided with the French national holiday was a happy omen, for France was not only the land of " liberty, equality and fraternity", but was also Unesco's home.

He joined wholeheartedly in the appreciation addressed to the Chairman, who represented a country whose Parliament had a long history of amicable discussions. He had been amazed by the democratic spirit shown by all the delegates.

He appreciated the fact that the minutes of the meetings had always been so rapidly distributed, and that the meetings of the Unesco-I.B.E. Joint Committee had covered the many items of their agenda in the brief space of an hour. This accomplishment was due to Mr. Piaget who, as a jeweller examined a precious stone, could study an idea and know very quickly if it was valuable or worthless. It was due also to Mr. Rossello, who could charm away difficulties with his smile.

Next year's Conference would be called upon to discuss an important problem : that of the introduction of compulsory education in countries where it did not yet exist, or of its prolongation in the other countries. The Conference would study means of surmounting obstacles to the universal application of compulsory education. He hoped to find this year's delegates there, perhaps accompanied by their Ministers.

Mr. PIAGET (*I.B.E.*) wished, as the Conference closed, to express his gratitude and that of the International Bureau of Education to all the delegates, whose collaboration and team spirit he had admired. This spirit was not easily acquired in international meetings, where difficulties arose not only at the meetings, but often behind the scenes. That nothing of this kind had occurred was due in large measure to the Chairman, who was the worthy successor of an unbroken line of great chairmen : Messrs. Kuypers, Walker, Abraham and Carneiro. He had added his personal qualities to those of his predecessors and his chairmanship had been a remarkable lesson for the Director.

He wished also to thank the Vice-Chairmen — Mr. de Alba,

who united in his person the dignity of a Spanish aristocrat and the qualities of a Mexican republican ; Mr. Wesselings, who characterised Dutch common sense and energy ; Mr. Mehran, who represented the wisdom of Zoroaster.

He thanked the rapporteurs : Mr. Stewart, whom he had admired as Chairman of the Committee of Experts before admiring him as he presented his report ; Mr. Gal, always eloquent and dynamic ; Mr. Calo, who was a professor of philosophy, a great educationist and a charming colleague.

Thanks were due also to the Director-General of Unesco, whose confidence was a real stimulant to the International Bureau of Education ; Mr. Elvin, his eminent successor as Director of the Department of Education, who dit not make much noise, but always knew exactly where he was going ; Mr. Carter, whose dynamic character he admired ; Mr. Akrawi, whose qualities he had had the opportunity to appreciate in Paris before discovering them again in Geneva.

Lastly, he thanked the translators, the interpreters, and the Unesco and International Bureau of Education Secretariats, which had worked under the able and energetic leadership of his friend Mr. Rossello.

He affirmed that the Conference had been successful. Recommendations had been voted on the exchange of teachers, on the teaching of handicrafts in secondary schools, and on the introduction to mathematics. These recommendations were truly constructive and original. As to the introduction to mathematics, it was the first time that a recommendation had not been amended. One could therefore say that the Conference had made a worthwhile contribution.

The CHAIRMAN declared himself incapable of expressing what he felt as this Conference closed, for everything had already been said so eloquently. He thanked the delegates for their patience and their tolerance. He had tried to represent the Conference in his person. If therefore he had given proof of any virtues, they were merely the reflection of the virtues of the delegates themselves. He joined in all that had been said about the International Bureau of Education and Unesco and about the people who had represented them so brilliantly. It was impossible for him to mention all the members of the Secretariat and of the Conference who had helped him in his task. He made an exception, however, for Miss Cusden, who had served admirably as the link between the Chairman and the rest of the Conference.

He thanked also Mr. Picot, representing the Swiss and Genevese authorities who had offered hospitality to the Conference ; and Messrs. Piaget and Rossello, with whom there had been perfect harmony, despite the difference of language. He wished

also to mention the U.N., I.L.O. and W.H.O. observers who, through their attendance, showed their unfailing interest.

In conclusion, he hoped that the sentiments of friendship and good will manifested during the entire Conference would expand in widening circles from Geneva, to reach and restore the broken circle of peace.

He declared closed the Thirteenth International Conference on Public Education.

(The Meeting rose at 1.30 p. m.)

TEXTS OF THE REPORTS

INTERNATIONAL INTERCHANGE OF TEACHERS

Report of Mr. F.K. Stewart *

The representative of the Director-General of Unesco opened the meeting. The following officers were elected : Chairman, Mr. F. K. Stewart (Canada) ; Vice-Chairman, Mr. M. A. Latif (Pakistan) ; Rapporteur, Miss S. Guiton (United Kingdom).

After adoption of the provisional agenda the Chairman opened discussion on the first working document, Unesco-I.B.E./167/1, which was discussed at the first two meetings. Unesco-I.B.E./167/2 was discussed at the third meeting. During this discussion delegates had an opportunity of giving a considerable amount of information on interchange schemes and their operation in the various countries. For the purposes of this report the points arising from Unesco-I.B.E./167/1, which studies the existing programmes for the interchange of teachers, will be combined with those arising from Unesco-I.B.E./167/2, which deals with the promotion of interchange schemes. The form of the latter is followed in this report.

Programmes in Operation

At the invitation of the Chairman, experts outlined schemes for post-to-post exchanges between teachers from countries sharing the same language. Those mentioned were :

United States	— United Kingdom	English language
United Kingdom	— Commonwealth countries	
Canada	— United States	

* This report is identical with the one approved by the meeting of experts on the international interchange of teachers, convened by Unesco, of which Mr. F. K. Stewart was chairman and Miss S. Guiton rapporteur.

France	— Belgium	
France	— Switzerland	French language
France	— Canada	
Belgium	— Netherlands	Dutch language
Brazil	— Portugal	Portuguese language

While it was felt that the organisation of the English language exchanges was not perfect, the schemes seemed in general satisfactory, though there was room for improvement in the Commonwealth scheme.

One of the difficulties in exchanges between countries sharing a common language arose from the different usage of the language and idiom, though it was also argued that this was in itself of interest and stimulating. Another was the strict curriculum requirements in some countries which imposed a heavy burden on some teachers not familiar with the routine.

Discussing the influence of a teacher in the community and the interest which his experience aroused in his own country on his return, it was mentioned that a group of teachers had reached two and a half million people through talks and lectures. Means were discussed for broadening the teacher's own personal experience while abroad, thereby increasing his influence in his country on his return. It was stressed that since the success of teacher interchange programmes depended so much on the establishment of good human relations at every stage of the appointment and subsequent service at a foreign school, a solution of the points set out above was of the first importance.

Interchanges and Non-Permanent Appointments Abroad

Post-to-post exchanges between modern language specialists were arranged between countries each of which taught the language of the other. In each case the teacher exchanged taught his mother tongue in the country in which he was temporarily attached. Interchange schemes for non-permanent appointments for teachers of languages were outlined : the " Assistant " scheme permits intending teachers of language to spend a year in the country whose language they propose to teach ; the Senior Assistant scheme, which is an extension of the original scheme, is designed to assist experienced teachers of languages in France and the United Kingdom to be appointed for a year in the opposite country. The United Kingdom makes similar arrangements with Austria.

The problem of interchange schemes and non-permanent appointments of teachers abroad other than modern languages specialists between countries of differing languages was raised. This is a difficulty which would be met especially in those coun-

tries whose native languages are generally taught abroad. Numbers of teachers from countries whose native languages are not normally taught in French schools, for example, wish to spend a period in France in order to perfect their knowledge of the language which may constitute an important item in the curriculum of their home schools. The problem to be solved, therefore, is to find a satisfactory means of employing those teachers in a school in the host country.

Problems and Possible Solutions

Selection. In all types of interchange and non-permanent appointments abroad the need for careful selection was emphasised. It was felt that the present need is not so much expansion, which can come later, but the maintenance of a high standard of candidates and the most efficient development of interchanges so that they can be arranged with the greatest benefit both to the individuals and the countries concerned. It was suggested that the experience of countries in the selection of candidates and the organisation of interchange schemes should be made available to other interested countries through the good offices of the Unesco secretariat.

Length of Appointments. The length of the interchange or non-permanent appointments abroad must depend on the type of scheme and the countries involved, but it would seem wise for a scheme to be sufficiently flexible to ensure that a particularly successful teacher would have an opportunity to stay for a further period, especially in cases of appointments to distant countries. In the present conditions, interchange schemes should provide that candidates return to their own countries after completing their service abroad.

Shortage of Personnel. This was not generally felt to be an obstacle to interchanges or non-permanent appointments abroad of teachers at the secondary level, though it sometimes raised difficulties at the university level and might occur in the case of long-term interchanges of educational personnel.

Legal and Professional Difficulties. The view of the meeting was that in the matter of legal and professional difficulties the stress ought to be put rather on the removal of difficulties than on listing those which existed, in order to smooth the way for short-term interchanges of educational personnel.

Difference of Teaching Methods, etc. The point arising here, as well as in the discussion of exchanges between countries sharing a common language, was that the burden of strict curriculum

and examination requirements weighed heavily on the visiting teachers not familiar with the routine.

It was also emphasised that interchange teachers and teachers holding non-permanent appointments should have sufficient leisure to make themselves acquainted with the country to which they were temporarily attached and to pursue a course of study if so disposed. It was also stressed, however, that the exchange of teachers was an exchange of work and that teachers should undertake responsible work while holding interchange appointments.

Publicity. In so far as this question affects interchanges, it was recommended that greater publicity should be arranged to make teachers and educational administrators aware of opportunities.

Information. Teachers themselves might be better prepared with information on their own educational system and national institutions, as well as given opportunities of gaining all possible information and making contacts while holding an interchange appointment. This point was also discussed in connection with exchanges between countries sharing a common language, when the importance of a teacher in the community was pointed out, together with the use which could be made of him, to further a better understanding between nations.

Finance. The discussion showed that it was generally recognised that the financing of interchange schemes and non-permanent appointments abroad, was basic to the whole question. Post-to-post exchanges should solve the problem, but the cost of transport and difficulties arising from rates of exchanges and differences in salary scales made it necessary for some help to be given to teachers to enable them to participate. The arrangements made under the Fulbright Act which had enabled schemes for the interchange of teachers to be implemented or assisted were explained under this head.

These financial points, important at the present time, would have to be kept in mind, for should interchange schemes be extended, the financial burden would proportionately increase.

At the fourth meeting the Chairman opened discussion on document Unesco-I.B.E./167/3 — *Meeting the requirements of Member States for specialised teachers and professors from abroad.* Experts from certain Asian and other countries stressed the urgent need of their universities and other institutions of higher learning for teaching personnel in various specialised fields for long and short term appointments. All countries with available personnel represented at the meeting and, in particular,

the International Refugee Organisation, expressed their anxiety to assist in whatever ways possible to meet these requirements. Reference was made, however, to certain problems such as: conditions of employment, equivalence of degrees, security of tenure, and it was agreed that an intensive recruitment campaign would be necessary in suitable areas before teachers would be willing to consider appointments in distant countries.

In discussing the part that Unesco could play in stimulating recruitment for the less developed areas, it was agreed that its major role was to make itself familiar with possible sources of supply of specialised teaching staff. In addition it could be of assistance in the following ways : a) in making known continually developing requirements ; b) in requesting Member States in need of personnel to submit a clear statement of their requirements ; c) in investigating possible sources of supply, not necessarily well-known ; d) in pursuing a tentative and flexible policy with respect to direct recruitment which certain Member States would wish it to undertake, in accordance with its capacities, from time to time.

Recommendations

The Committee of Experts on the international interchange of teachers, convened at the invitation of the Director-General of Unesco in Geneva on 4 and 5 July 1950, believes that one of the most effective and practical ways of promoting a deeper understanding among peoples of different nationalities and cultures is the international interchange of teaching personnel and educational administrators. Through the wide promotion of existing interchange schemes, arrangements for non-permanent appointments, the extensio[illegible] "Assistant" schemes to aid in the teaching of modern languages and the initiation of new programmes where they do not already exist, teachers can broaden their knowledge of other cultures by practical work among students of other lands, can bring to those students a knowledge of the culture of their own countries, and in return can, in their continuing careers, interpret the new countries which they have come to know.

Apart from the real contribution which they make to international understanding, interchange programmes offer to educational authorities an effective instrument for developing their promising teachers, who can, by such exchanges, secure experience which should enable them more effectively to contribute to the development of education in their own countries and stimulate the interest of their pupils in a better understanding between peoples.

I. The Committee of Experts recommends to the Director-General that he approach Governments of Member States and urge them to facilitate and promote these programmes of cultural collaboration and to promote thereby the aims of Unesco, by taking the following action :

a) to give wide publicity to programmes for non-permanent appointments and the interchange of teachers among governmental, professional and private institutions and organisations concerned with education and with the promotion of international understanding ;

b) to give particular attention, in continuing or planning programmes for the promotion of international cultural relations, to the interchange of teachers and the arrangement of non-permanent posts ;

c) to extend such interchange schemes and arrangements for non-permanent appointments where possible to other countries and other regions, and to broaden them to include all categories of teachers.

II. The Committee of Experts draws attention to obstacles which impede the movement of teaching personnel and educational administrators, and for the removal of which the co-operation of Governments is essential. It recommends to the Director-General that he urge Governments of Member States ;

a) to ensure that teachers sent abroad on non-permanent appointments or interchange arrangements do not lose status, superannuation rights, etc., during their period of teaching abroad ;

b) to encourage schools and colleges to accept teachers from abroad and to release teachers for periods of teaching in other countries, and, with this end in view, to consider the removal, as far as possible, of legal or administrative obstacles to such movement ;

c) to remove restrictions to the exportation or importation of currency for persons appointed to non-permanent appointments abroad and interchange posts and, where necessary, to make special arrangements with respect to taxation of persons engaged on such teaching appointments ;

d) to support financially interchange schemes and arrangements for non-permanent appointments handicapped through lack of subsidy for transportation, cost-of-living differential, or other necessary expenses.

III. The Committee of Experts recommends to the Director-General that he continue to promote the international interchange of teachers and arrangements for non-permanent appointments abroad :

a) by keeping governments aware of the importance of these programmes in order to promote international understanding ;

b) by publishing and giving wide dissemination to information on opportunities to teach abroad ;

c) by encouraging governments and private agencies to promote programmes ;

d) by publishing and disseminating reports of Member States on their experiences in the field of teacher interchange and non-permanent appointments abroad, and rendering advice, on request, for the organisation of programmes ;

e) by placing the services of its educational clearing-house at the disposal of persons requiring information on the educational structure of other countries and the significance of adademic qualifications.

f) by enabling experts on interchange programmes to meet periodically to study developments in the field of interchange and non-permanent appointments abroad and to develop plans to meet new problems and requirements.

IV. The Committee views with particular concern the needs of certain less developed areas of the world, for advanced specialised teaching staff, from abroad. It recommends to the Director-General that he assist in the recruitment of suitable personnel in accordance with the capacity of his Organisation, and suggests in particular that he :

a) invite Member States to investigate and announce their requirements ;

b) publicise these requirements ;

c) study possible sources of supply ;

d) in exceptional cases and when particularly requested to do so, undertake direct recruitment on behalf of Member States.

THE TEACHING OF HANDICRAFTS IN SECONDARY SCHOOLS

Report by Mr. Roger Gal

The Problem of Introducing Handicrafts in Secondary Schools

Since the discoveries of educational science have led the modern educationist to consider that the starting point for any action should be a child's real psychology and not an adult's traditional conception of it, handicrafts have become a standard subject in primary schools. It may be said that this subject has won its battle on the primary level.

Must we plead its cause in secondary school training, that is, for those pupils who are to receive more advanced intellectual training, whether scientific or classical ? This is the question motivating the inquiry carried on this year by the International Bureau of Education.

The replies from the various countries appear to indicate a victory in this respect. Thirty-eight of the forty-seven countries give information on the teaching of this subject in secondary schools ; their answers apparently prove a victory over the objections in principle to introducing this new subject in a curriculum where originally there seemed to be no place for it. Three answers are negative, however, and six other countries supply information which is relative to primary or teacher training education rather than to secondary education. The affirmative answers do not always mention classical sections, moreover, among those benefiting by this subject, and in almost all cases the introduction to handicrafts is incomplete because it is limited to the first years of secondary schooling, is confined to certain sections only, or is optional or one among several options.

It would seem, therefore, that, although much has been accomplished in the last decades or even since the preceding inquiry of the International Bureau of Education in 1942, much still remains to be done. Judging by the experience of my own country, I believe that this is often due to the fact that training in handicrafts at this level necessitates special premises and equipment which are not always available and which are very costly. This

is doubtless the principal reason for the delay in making this training more universal.

It was to be expected also that the introduction of handicrafts in secondary schools would encounter difficulties of a cultural type, for by a long tradition secondary teaching has been strictly theoretical in character, preparing students for intellectual careers. Opposition is still encountered from those who uphold the cultural tradition and see in handicrafts only an extraneous activity dealing with material objects and serving a strictly utilitarian goal. For these reasons, it seems to me desirable to plead this cause once again and examine wherein lies its real value, defining at the same time its objectives.

Value and Aims of Handicrafts

The educational values of handicrafts can be deduced from the reports which have been presented. An attempt is made here merely to group them and to explain them in detail.

It is a fact that handicrafts have a general educational value and that they can contribute to the training and development of the whole personality. The reason, therefore, for introducing them into secondary education is not only that they develop manual and practical skills, or that they enable the individual to carry out ordinary everyday tasks and teach him how to put his leisure to good use. Nor is it because they serve as an introduction to a professional activity. It is rather that handicrafts are based essentially on the general values underlying the human personality, which they help to expand.

It is certain that handicrafts must not be allowed to hinder vocational or technical training, to which they can usefully serve as an introduction in school systems where they are used for the selection of individuals suited to continue with that form of work. They only prepare pupils indirectly, however, for a given trade, and the perfection of pupils in vocational techniques is not their real aim ; at the most, they serve as a means towards that end, in so far as any proficiency and training require the mastery of a certain technique. In reality, however, and particularly from the point of view with which we are concerned, no education, which does not include handicrafts, can be considered as complete.

In the first place, handicrafts are excellent for training the senses, especially touch and sight. They develop manual abilities and skill. They also stimulate the faculty of observation, exacting constant measure, accuracy and attention from the pupil. Thus, by bringing creative and constructive thought into contact with real objects, they give both a sense of reality and a sense

of the characteristics of matter, inducing a habit of testing ideas by objective criteria. Thus handicrafts give the necessary balance to a general education which often errs on the side of being theoretical and intellectual. Handicrafts are therefore essential to the complete and harmonious development of the adolescent's personality.

It also requires constant exercise of the intellect to learn handicrafts and, although this may seem paradoxical, such training leads towards abstract thought. Psychology teaches us that intelligence springs from action, and the history of humanity itself bears that out. "In the beginning was action", says the German poet, and according to the French philosopher, Bergson, "Thought was born in the hand and rose to the brain". What is true of the evolution of humanity as a whole must be true of that of the individual. It is by concrete action, by creating things with their hands, that the child and the adolescent arrive at true concepts, reach upwards to abstract thought, the power of analogy, a realisation of cause, reciprocity and continuity, and a power of foresight, in regard to effects and finally laws. It is through a twofold evolution from conception to reality, from practice to ideas, that thought is formed and that experience becomes knowledge.

It is a fact that handicrafts lead to a perfect unity of thought and action. It is for that reason that handicrafts, from the psychological point of view, while fulfilling the purely cultural needs of education, also respond to the need for action which is in all young people, and maintain a balance between contemplative and active pursuits. It is reasonable to hope that handicraft teaching may help to overcome the century-old opposition between thought and action.

Whether or not handicrafts lead to the production of beautiful objects, they provide the easiest means of enabling pupils to experiment in aesthetic creation. It can be said that such teaching is even, in a sense, an important part of artistic training, since it may awaken good taste and, in any case, responds to the individual's need to create and to express himself spontaneously.

From the point of view of ethical education, handicrafts are character-forming, provide discipline in work, and teach order and method. More easily and clearly than other subjects perhaps, handicrafts make pupils alive to the need for effort, accuracy and finish in their work, since the utility and importance of handicrafts are obvious to everyone.

Handicrafts are equally valuable from the point of view of social education, for, while to a certain extent accustoming future intellectuals to using their hands and making them understand the mentality of manual workers, it may serve to bring them

closer together and to remove the causes of misunderstanding which have separated them hitherto.

In appealing thus to the whole of the personality and calling very varied capacities into play, handicrafts can be of great assistance in giving the teacher a psychological knowledge of his pupils, which is essential to all education. Handicrafts are particularly indispensable in bringing to light aptitudes, interests and tastes which must be known in order to guide school work and, later, vocational training.

Finally, handicrafts aid very effectively in teaching all other subjects. As has been pointed out in reports from several countries, they constitute a means of giving concrete demonstration in many subjects, and of providing innumerable topics for hobbies and research, suitable for development in many directions.

Place of Handicrafts in the Curriculum

For all these reasons, a humanism worthy of the name, that is, wishing to develop in man all that is proper to him, should include the teaching of handicrafts in its curricula for every year of secondary education and for all young people. Let us not be afraid to say that it should be included particularly for the groups which will produce the intellectuals of the future.

Almost all the reports answer in the affirmative the question of whether handicrafts should be taught as a separate subject. Just as it was useful in primary education to articulate handicrafts with observation, history, geography, arithmetic and art lessons, so is it suitable on the secondary level to cultivate the subject for its own sake, and introduce handicraft techniques in a methodical way.

Despite what has just been said, however, all the answers insisted that handicrafts should maintain a close relationship with other subjects, thus responding to the desire that they may serve as an auxiliary and source of interest in general education. As a matter of method, this implies the coordination of handicrafts with most other subjects studied — mathematics, natural science, geography, history, the mother tongue and drawing.

The time to be devoted to handicrafts obviously depends on the material possibilities and conditions in each country ; it should at all events be sufficient to allow concentrated and continuous activity and a close relationship with other subjects.

Nearly a third of the replies speak of an examination in this subject. We wonder whether this is advisable, for it is shown below how much the fear of penalties endangers the truly educational aims of the teaching of handicrafts at this level.

Curricula

The table in the middle of the first chapter of the inquiry lists the different items in the curricula of the various countries. It will be noted that to the customarily accepted handicraft activities — woodwork, metalwork, needlework and domestic science — are added many new activities such as weaving, carpet making, bookbinding, leather work, the construction of models of boats and aeroplanes, the making of marionnettes, pottery and modelling, not to speak of gardening and arboriculture. From wood to aluminium, from sheet-metal to bamboo and shells, there is no material which cannot be used. This seems to conform entirely with the aim of craft training — to offer to young people varied means of expression.

Here, howerer, arises a serious problem — should handicrafts for girls be quite different from those for boys ? They should, in so far as the education of girls should answer different needs, although modern life often calls on women for the hardest labour, confined theoretically to men. They should not, on the other hand, if we consider the specifically educational aim of handicrafts. For it would be difficult to understand why either sex should be refused any particular opportunity of which it is able to take advantage. Practice shows that, in this respect, the interest of the two sexes are not as different as one might believe. In France, the Reform Commission stated that handicrafts should in principle be identical for both boys and girls, that the " new classes " in secondary education should offer other activities besides needlework and domestic science, and that these two subjects, moreover, should not be confined to girls.

Methods

School authorities leave the teacher very free in the matter of methods. Is this because of their confidence in his ability, or because the teaching of handicrafts at secondary level is at an experimental stage ? The second interpretation is perhaps the most likely. But how can one fail to suggest that this training should respect psychological and pedagogical conditions true in all realms of education ? The general directives which have been worked out in various countries are lacking in this respect. No particular technique is specially recommended, with the exception of Denmark, where the general lines of Aksel Mikkelsen's method are applied and taught in a special training college. This is a method created by a serious study of the worker's manipulations in the use of each different tool.

On the other hand, some replies to the inquiry stress the methods which appear necessary if the teaching of handicrafts is to have a real educational value. Activity methods demand essen-

tially that we appeal to a child's interest, to his creative liberty, by proposing that he execute complete and usable objects which he is eager to create and by leaving him even a certain freedom of choice in his work. Some countries even give the children work-sheets which leave them a large share of the responsibility and initiative.

Here and there a country stresses the importance to be given to the aesthetic, in the use of team work in tasks which allow it, so that this training may be as effective as possible in a cultural and social way.

May we not briefly define this method by saying that it should avoid two pitfalls ; first, it should allow no " odd-jobbing " and half-hearted execution of work ; secondly, it should not allow the pupil to adopt a bad posture while working. That necessarily implies that the teacher should have a certain knowledge of professional techniques.

Let it be repeated, however, that handicrafts in secondary schools must be completely distinct from professional handicraft work. Therefore, it would perhaps be advisable, in order to avoid confusion, to have the subject called " educational handicrafts ".

Teaching Staff

Denmark excepted, method is therefore closely linked to the personality of the teachers of handicrafts. This brings one naturally to the conclusion that the problem of a qualified teaching staff is of primary importance.

What is a qualified teacher ? He is obviously one possessing not only the technical skill required by the subject, but also — because of its primarily educational aim -- serious training as a teacher. The teaching of handicrafts is only now showing of what it is capable, and educational authorities have solved the problem of teaching personnel as well as they could by adopting such solutions as the locality permitted. Teaching has been entrusted to graduates of technical or fine arts schools, to artisans, to primary or secondary teachers having manual ability, or to people who have not taught but have taken an appropriate examination. Countries giving specialized training to regular teachers have adopted the solution which answers best the needs of a training which is both technical and pedagogical. This purpose also seemed to be served by summer vacation courses given to teachers in service. It is true, however, that in many countries there is a shortage of handicrafts teachers who have received a suitable two-sided training. It seems to us that this point should be studied and become a subject of a recommendation.

Material Organisation

To set up suitably equipped workrooms, a considerable financial expenditure is necessary. The survey of the International Bureau of Education shows that the State usually pays installation expenses, while equipment costs are very often covered by the school management or, partially or entirely, by the pupils themselves.

The installation of workshops is essential for the carrying out of official curricula, and this problem is being studied by the educational authorities in many countries. It is a problem which, in our opinion, should be considered, together with the question of teaching staff, by the Conference.

Conclusion

Such are the main aspects of a question which is important. not only from the educational, but also from the social and historical, points of view. For if we arrive at a favourable solution, it will mean that every individual will receive a broader and better balanced education, and it will also mean that a great step is made towards mutual understanding among men. Because, even before there were any causes of misunderstanding between nations and races, there were deep-rooted causes of misunderstanding between social classes ; there was a wall of ignorance, and sometimes even of hostility, between those who worked with their hands and those who worked with their minds, between manual workers and intellectuals, between the mass of the working people and the intellectual *élite*. It would indeed be logical to try first to break down those barriers within our own countries. It would be a valuable contribution towards that aim if handicrafts were introduced into all schools, including secondary schools. For this reason we should be deeply grateful to Unesco and the International Bureau of Education for having placed this item on the agenda of this Thirteenth International Conference on Public Education.

INTRODUCTION TO MATHEMATICS IN PRIMARY SCHOOLS

Report by Mr. G. Calo

Introduction

It is quite unnecessary, I imagine, to stress the importance of this subject, involving problems which Unesco and the International Bureau of Education have wished to place before you ; you know the motives which prompted them to ask you to give your clear-sighted advice in the matter and to prepare precise recommendations which can be easily implemented. It is not merely a question of a subject which, traditionally, has always been one of the corner-stones of primary education. Not so long ago, it was considered as an essential discipline, one of the three subjects which the Anglo-Saxons call " the three R's ", but today it is recognised as a powerful factor in general education. Its complexities become more evident every day, owing to the numerous problems which it involves and its manifold links with other subjects and with the whole work of the educator, especially the primary teacher.

First of all, I must admit that I am not a mathematician, in spite of the interest which I took in mathematics in the already far-off days when I was a student, and I should not have accepted the honour of submitting a report to you, had I not been encouraged by the fact that the subject was restricted to an " introduction to mathematics " and by the fact that I have derived much valuable help from the book published by the International Bureau of Education.

Contents

The first problem which arises is that of the content of the subject which, in primary schools, can only be qualified as " an introduction to mathematics ". According to the tradition which I mentioned earlier, it should apparently include

only arithmetic, elementary notions of numbers and counting. But, despite the differences and uncertainty regarding terminology in the various countries, it is to be noted that elementary geometry appears in primary school syllabuses. Some countries do not actually mention geometry in their syllabuses, but whether geometrical studies are more or less advanced, anticipated or postponed, whether they take the form of a simple calculation of areas, or whether they are more extensive, broader and more complex, the fact is that, generally speaking, they have been introduced, under one name or another, into elementary mathematics. This tendency is already over-riding and is bound to continue to increase.

The great educator, Pestalozzi, defined the bases of intuitive education, that is to say, of all intuition enabling children to form concepts and acquire elementary knowledge, as *number, shape* and *speech*. It is, moreover, obvious that the investigation of shapes, surfaces and volumes, and the need to grasp their significance, are within a child's very nature and satisfy one of his keenest interests. It is for that reason that arithmetic teaching, if it is to be logical and based on sound psychological principles, must give a child concrete ideas about numbers and the capacity to compare them and count them, making him act on things by observing their quantitatively definable elements, geometrical shapes and arithmetical relationships, and by measuring, etc. It is not easy to see how arithmetic teaching can be really active if it is not accompanied and supported by the study of geometrical shapes, by action on things, in so far as their shape is composed of quantitative elements. In the quadrivium arts, arithmetic and geometry were related to astronomy and music. Arithmetic has no useful function which cannot be connected with geometry. These two subjects should be inseparably linked in schools. As Julien Mortier so well puts it in his experimental work on the *Teaching of the Fundamental Concepts of Geometrical Shapes*, " Geometrical shapes are not considered as an autonomous subject in contemporary education. They are amalgamated in syllabuses with arithmetic and the metric system under the heading of *number* and *shapes*. These three subjects are closely related, providing mutual support and, in handicrafts, they can be applied jointly in a manner which call the intellectual and muscular capacities of the pupils into play ".

Aims

It may be said that the aims of the subject everywhere present, explicitly or implicitly, a certain unity, whatever superficial differences may exist. It is, in fact, hardly necessary

to stress the practical importance of the introduction to mathematics, inasmuch as everyday problems, the satisfaction of our needs, and the economic laws governing at least one very important aspect of our activities and social structure, are mathematical in kind. Counting, measuring, and operating with numbers and quantities are prime necessities in regard to the provision for man's day-to-day needs.

The aims of the subject, however, extend far beyond the merely practical. There are two further aims that may be defined as a) an *objective or gnostical* aim, and b) a *subjective, educational* aim, and that are closely bound up with each other. In the light of the first of these two aims, arithmetic and geometry appear as means of approaching the inner realities of things, and of recognising their permanent aspects and the laws governing their movement and unchanging harmony. As modern human beings, we may refuse to accept the Pythagorean principle of numbers as *formative elements in reality*, and we may find inadequate that mechanical interpretation of the universe, according to which, in the words of Galileo, nature is written in mathematical characters — *numbers, circles* and *forms* — and is thus, and only thus, an object of scientific study, since its elements (form, number, movement, etc.) are amenable to quantitative treatment. We cannot refuse, however, to admit that it is through his ability to calculate and discover relationships and mathematical laws, that man is able to contemplate and comprehend the natural order, and bring before his mind's eye the sublime spectacle of its inner rationality, of the unfailing, exact rhythm and immortal unison informing the creative ebb and flow of its unending becoming.

Such is admittedly a *gnostical* aim, but one which is already linked with the subjective, educational aim of mathematics. An understanding born of the number, order and law in the universe, that is to say, of humble physical things, is already fused with the order and law of the heart. The subjective educational aim of mathematics has two aspects : a) intellectual, and b) moral. Through the first, a child's power of thinking in abstract terms is fostered and disciplined in a more direct, controlled and rigorous way ; his intellect is accustomed to clear, logical and precise reasoning. In mathematics, every mistake, every straying from the path, every confusion, has inevitable consequences ; it is a subject which demands coherence and accuracy, and in which each part is linked with the whole, results checking procedures and no room being left for the arbitrary.

The intellectual aim of mathematics is then transmuted into a moral one, and this is a point made in many of the replies. The checking and rigorous logic that mathematics demands, leads to a growth of the will, wholehearted perseverance,

concentration, and an awareness of self : such already amount to a moral discipline, and they also call for disinterested search for the true and conscious rejection of the false, and resistance to the temptation of concealing a mistake and blurring the features of truth. Although not alone in this respect, mathematics is a powerful, direct means of training children in uprightness and loyalty, and in that intellectual honesty which is the very ground of all morality.

Certain writers have observed that there is not a very high correlation between mathematical and general intellectual ability, or between mathematical and other school activities. Without broaching the thorny problem, however, of what exactly *general intelligence* is, or seeking to isolate and define mathematical ability, it may be quite firmly stated that mathematical training has a very high educational value, and no experimental data can show the contrary. Such data, I insist, moreover, quite fail to justify the fairly widespread opinion that an inaptitude for mathematics is possible. As with other abilities, there are degrees of mathematical ability, calling for different didactic approaches, but by no means affecting the function and value of the subject. It is perhaps unfortunate that mathematics is a subject where faulty methods, disorder, and lack of clarity easily lead to a belief that certain children have no mathematical ability ; this belief, however, is illusory, and the fault lies with the teacher. In the teaching of mathematics, order and clear and rigorous reasoning are all-important ; a child loses interest immediately if the logical thread is broken and the verbal fog becomes dense.

Methods

The principal problem, therefore, is of method. I propose to put methods before curricula, for a curriculum involves distribution and grading, which are both important features of method. It is obvious that we can discuss only a few basic considerations which are particularly related to the answers of the various Ministries and to the experiences and suggestions contained in them.

What is particularly striking in the teaching of arithmetic is the general tendency to proceed from the purely *intuitive* aspect of teaching to the *active* phase. The intuitive stage supplies merely the notion of number and the ability to perform operations, by dealing with objects or groups of objects which are concrete numbers, rather than by trying to isolate and define an abstraction, and perform operations related to it. Naturally, in the intuitive method there is also an active period, but this is not the active method proper. The true active method involves

an objective or practical problem in which the subject — the child — is genuinely interested. Even in the nursery school, countless games and building exercises can be organised following the disposition and taste of the small pupils. The next step is comparing sizes (more or less big, wide, high, long, heavy, etc.). Then comes distinguishing between groups considered as a whole, more or less extensive, and composed of more or less numerous elements. Finally comes acquaintance with the first numbers as groups of separate units. But afterwards counting, calculating and various operations should be utilised as much as possible and shown from time to time as able to solve problems. Problems of measuring, constructing, filling and emptying, buying and selling, reaching a set relationship, apportioning, putting into savings, etc., all imply arithmetic.

This is very unlike the thesis by which the idea of number springs simply from action and from the stimulus to action. A number would never take form if it were not a product of the mind, a desire of the mind for concrete expression, a latent power. This by no means solves the problem, however, of the method by which this latent power assumes form, nor does it preclude action, the interest in life's concrete problems, as the most natural and surest method. It is not necessary to recall, for instance, Dewey's doctrine of the origin of numbers through measurement and the origin of measurement through the need to proportion the effort to the end, that is, by economic need in the fullest meaning of the word. Nor is it necessary to evoke Piaget's doctrine that number is built up by successive steps closely linked to the gradual working out of inductive or logical systems and of asymetrical arithmetical relationships, or qualitative series of numbers, number being thus built up as a working synthesis of classification, while still related to and carrying on a method of operation the roots of which lie in sensory-motor activity, the latter being however excelled by this building up of groups. In any case, setting theory aside, in order to translate ideas by numbers and to progress effectively in the use thereof — that is, in arithmetical operations — there must be activity moved by a definite interest.

Let us not forget, however, that a child entering school does not have to learn this procedure. He is far from having such a need, for life has taught him a great deal about arithmetic. There would be no advantage in teaching him what he knows already. Instead we should continue to explain, define, develop and systemise. It is specially necessary to use many examples to give a very concrete notion of number. " 3 " and " 4 " should be recognised not merely by objects in sight but by sounds heard, motions performed, things which pass before the eyes and disappear one after the other, in time as well as in space.

Moreover, ordinals and cardinals must not be considered as unrelated. A series of names of numbers has no value unless each name means something real and has very definite content.

This interpretation, this positive and concrete notion of the value of the each number, is thus complete only when it indicates multiple relationships with other numbers, at least in a definite numerical area. " 6 " is not a clear and determined number, in other words a real possession and faithful tool in the pupil's hands, until he sees in it : $3+3$, 3×2, $4+2$, $12\div2$, etc. This leads us to believe that, in the final analysis, counting and basic arithmetical operations should not be separated from the study of the numerical series. This is basically the ancient Grube's method, which others have used in different ways, but which appears to me entirely reasonable.

A remark which has often been made in Italy and elsewhere is that, unfortunately, pupils fail just where they should succeed, where elementary mathematics could prove its worth, that is, in solving problems, in applying basic mathematical conceptions which are intended to direct the pupil to the goal set by his problem. It is true that the failure is often due to the poor presentation of the problem, which does not show clearly enough the difficulty to be surmounted and the related elements. The cause of failure, however, often lies deeper and is due to the theoretical and abstract nature of instruction. The concepts learned cannot be applied to the solution of problems if they have not been studied with this end in view. Teaching must be active and functional if it is to ensure skill in practical application of what is learned.

This shows also that one must not be too hasty in drawing up tables and forming the necessary habits. Before going on to written symbols and to building tables — which are not, moreover, necessary for all operations — much oral arithmetic is needed with the use of real objects and activity. Once one has the habit of doing arithmetic and the practical problems orally, it is easy for the teacher to construct the numerical series, the system of conventional signs, the mechanism of the operations — thus enabling his pupils to understand their *raison d'être*. The door is thus opened to more purely deductive methods, whereas before this point introduction to mathematics should be largely inductive and based on objects, facts and actions.

If tables are worked out with the pupils, they should not be a mere matter of memory. Moreover, after it has been worked out, the table — the Pythagorean table, for instance — may be examined carefully by the pupil. Seeing a certain relationship between terms, and certain patterns in numerical distribution, he can be led to make strange and very interesting discoveries.

In every instance, each new bit of learning should be constantly translated into action and become a means of studying facts and of solving real and interesting problems. A famous mathematician, Young, in his treatise on teaching mathematics, suggests veritable " excursions " for mathematics, as for other activities. All the physical and social facts of life have their mathematical side. To make this teaching active, one can measure heights, distances, degrees of humidity, temperature, growth of plants, etc. One can collect data from interesting places — at the post office, factory, railroad, town hall, farm, etc. — and can discover relationships, draw statistical conclusions, and make arithmetical problems on them. Some countries tell us that they have introduced such practices.

There is one precaution mentioned by all or almost all the answers to the questionnaire : one must proceed by gradual stages. Not to do so is almost always the reason for not benefiting from the study or for dropping it. No link must be left unforged. What one has done is the key to what one can do. It is specially necessary to estimate the concrete meaning to a child of each operation. One of my Italian colleagues, who is an eminent mathematician, recently told me a striking example. It is not hard to convey the notion of fractions at a particular moment. Nor is it specially difficult in primary education to introduce operations with fractions. But observe what happens when one goes without further preparation from the example $2/5 \times 3$ to the example $3 \times 2/5$. The simplest definition of multiplication is that of the addition of terms which are all equal to each other. It is clear that this definition has a positive meaning only when the multiplier is a whole number. Yet the definition is true also when the multiple is not a whole number. At this point one must follow a system based on Peacock-Hankel's rule of the " invariability of the formal properties of operations ". Multiplication has a " distinctive " property, which is the transposing property : 3×5 is the same, gives the same result as 5×3. Then the transposing property, applied to the multiplication of $2/5 \times 3$, will bring us to the conclusion that this multiplication could also take the form $3 \times 2/5$, that consequently the result is the same. However, this is a mere convention. In reality, if concretely a multiplication $2/5 \times 3$, which means $2/5+2/5+2/5=6/5$, has no recognized or practical meaning, the multiplication $3 \times 2/5$ — which as a matter of agreement only has the same result — is the same as $2/5 \times 3$. It is obviously necessary to make a child see an operation meaning something both felt and concrete. He will understand and solve easily the problem " what is the price of 4 pounds at 20 francs apiece ", or also " at 20 1/2 francs apiece ", but he will find it more difficult to understand a problem like : " What will be the price

of 3.75 metres of cloth at 500 francs a metre ? " since the multiplication 500×3.75 has not really a meaning which he can sense. Naturally he will have to come to this problem, but later, long practice must be given in solving problems the steps of which can be recognised, before attempting those which are solved only with operations without recognised meaning.

I cannot give further time to discuss methods which differ primarily in the place which they give to practical exercises and in the nature of these exercises. One of these proceeds from a demonstration given by the teacher, with or without concrete examples, to exercises done by the child and generally bearing on problems found in his experience and perhaps taken from examples found in other primary subjects. The other method consists in suggesting some plan or undertaking to the child. Thus his activity is as close as possible to everyday life ; he must discover for himself the mathematical side of this activity and solve the problems involved in carrying it out. This method is obviously based primarily on the principle of activity schools, although it requires much care and attention and some practical adaptation, since certain questions can be understood and solved only after certain others and they must not be introduced too early, if this is avoidable. Lastly, activity methods have been so consistently successful that several countries have abandoned the old teaching material proposed by adults and tend to replace it by material prepared by the child himself.

We should note also what several countries have recognised — the difficulty springing from the multiplicity of mathematical terms. In some textbooks, for instance, are a vast quantity of terms relating to fractions — simple fractions, proper fractions, improper fractions, *unit fractions*, fractional numbers, fractional expressions, etc. Psychology sets the urgent problem of choosing definite concepts and the relevant vocabulary. This must be accomplished with the seriousness which the level of instruction and the child's mental development demand.

Many special problems can only be mentioned in passing. For instance, certain countries propose means of adapting the task to individual ability and of helping the weakest pupils by giving special study to difficult points and the reasons for them, using methods appropriate to individual remedial lessons.

Syllabuses

I will not deal at length with the syllabuses, as my report already exceeds the limits I set myself. There is a general tendency to simplify the syllabuses and to determine exactly the limits of the numeration and the operations to be learned in each class. The syllabuses differ very greatly from one country

to another. One can distinguish a fairly strong tendency in several countries, however, to anticipate exercises in multiplication and division, by keeping within certain limits of numeration. This would correspond to Grube's method about which I have already spoken. There is also a corresponding gradation of notions and exercises in the metric system, which is of great importance, not only from a practical point of view, but also with regard to the teaching of arithmetic in general.

In most cases, it is preferred to make a start with work with coins. It is evidently necessary after a certain point to pass on from empirical measuring to systematising in relation to a given unit.

No uniform degree of importance is given to geometry in the curricula. The question arises as to whether the teacher should begin with volumes and arrive finally at lines, by a process of progressive abstraction, or whether he should adopt an exactly opposite procedure. In my view, given a child's natural development, it is advisable to begin with the observation of solids. If one prefers a systematic approach, however, linked with, and supported by, drawing, then one will necessarily start with lines and angles and arrive only finally at areas and volumes.

Conclusion

Point two of the agenda places a great responsibility on us ; and the recommendations that we are preparing to send to the governments should summarise the best that can be distilled from our deliberations and our discussions. The conclusion to be drawn from our inquiry and from contemporary educational tendencies is that mathematics should be a living subject, its organisation should be progressively more systematic and logical, it should be linked with life, the environment, and a child's natural curiosity and active interests, and it should be constantly and intimately connected with all other subjects.

In any event, mathematics should not be an exception to the general principle according to which the school ought to reflect the living unity of a child's experience, contribute to it a clarifying element, greater awareness, and order, and both complete and extend it. The educational value of a school should not be exaggerated. Clearly there are limits to the educational value of mathematics, which, by its very nature, has an abstract tendency and develops deductive reasoning. The new mathematical " gnosis " allows a greater share than of old to instruction and induction, and new teaching methods mingle mathematical instruction more intimately with life itself, and

also with practical interests, observation and activities, but the limitations of which I have spoken still exist.

I am nevertheless convinced of the disciplinary and educational value of mathematics in developing both intelligence and will-power, a value deriving in particular from its extreme precision and accuracy. Galileo who, as a good Catholic, believed in God and recognised the difference between the all comprehending knowledge of God, and the restricted, inevitably impotent knowledge of man, nevertheless said that in mathematical truth there can be no substantial and qualitative difference between man and God.

On the other hand, our philosopher Gianbattista Vico replaced Cartesian *truth* by *certainty*, that is to say, he replaced that which can be proved — the truth of reason — by that other truth which cannot be proved, which yet derives its assurance from a different kind of certainty and forms the very basis of individual and social life, and which is the truth of experience, of moral conscience, of historical tradition, the truth which founds customs and cities, which leads to the understanding of men and to practical prudence, and which informs the laws and norms of wisdom.

This human truth can nourish scientific education, just as mathematical education may illuminate what Pascal called the " reasons of the heart ". It can clothe the world of human truth with moderation, precision and far-seeing clarity. Education is but a meeting and a tuning of different notes which derive life from one another.

An introduction to mathematics cannot perform miracles. No subject can do that, above all in the lower classes, since education is finite. What is important is that our efforts, whether or not they form the complete man, at least comprise preparation, guidance, stimulus and praise of him.

TEXT OF THE RECOMMENDATIONS ADOPTED BY THE CONFERENCE

RECOMMENDATION No. 29
TO THE MINISTRIES OF EDUCATION
CONCERNING
THE INTERNATIONAL INTERCHANGE OF TEACHERS

The International Conference on Public Education,

Convened at Geneva by the United Nations Educational, Scientific and Cultural Organisation and the International Bureau of Education, and being assembled on the sixth of July for its thirteenth session, adopts on the seventh of July, nineteen hundred and fifty, the following recommendation :

The Conference,

Convinced that one of the most effective and practical ways of promoting a deeper understanding among peoples of different nationalities and cultures and of raising educational standards, is the international exchange of teachers and educators,

Bearing in mind also that it is necessary to associate governments in the facilitation and promotion of programmes providing for the interchange of educators between countries and for non-permanent appointments of teaching personnel abroad,

Submits to the Ministries of Education of the various countries the following recommendation :

1) That wide publicity be given, among governmental or private institutions and professional organizations concerned with education and with the promotion of international understanding, to programmes for non-permanent appointments and the interchange of teachers ;

2) That particular attention be given, in the continuation or planning of programmes for the promotion of international cultural relations, to the interchange of teachers and the establishment of non-permanent posts abroad ;

3) That such interchange schemes and arrangements for non-permanent appointments be extended where possible to other countries and to other regions, and that they be broadened to include all categories of teachers ;

4) That steps be taken to ensure that teachers sent abroad on non-permanent appointments or interchange arrangements do not lose status, superannuation rights, etc., during their period of teaching abroad ;

5) That steps be taken to encourage educational institutions to receive teachers from abroad, and to release teachers for periods of teaching in other countries, and, with this end in view, to consider the removal, as far as possible, of legal or administrative obstacles to such movements ;

That educational craft activities are indispensable for exportation or importation of currency for persons appointed to non-permanent appointments abroad and interchange posts, and, where necessary, to make special arrangements with respect to taxation of persons engaged on such teaching appointments ;

7) That steps be taken financially to support interchange schemes and arrangements for non-permanent appointments, handicapped through lack of subsidy for transportation, cost-of-living differential, or other necessary expenses ;

Takes note of and supports the following recommendations to the Director-General of Unesco, of the Meeting of Experts on the International Interchange of Teachers convened by Unesco :

" The Committee of Experts recommends to the Director-General that he continue to promote the international interchange of teachers and arrangements for non-permanent appointments abroad :

a) by keeping governments aware of the importance of these exchanges in order to promote international understanding,

b) by giving wide dissemination to information on opportunities to teach abroad,

c) by encouraging public and private educational institutions to promote exchange programmes,

d) by publishing and disseminating reports of Member States on their experiences in the field of teacher interchange and non-permanent appointments abroad, and rendering advice, on request, for the organization of programmes,

e) by placing the services of its educational clearing-house at the disposal of persons requiring information on the educational structure of other countries and the significance of academic qualifications, and

f) by enabling experts on interchange programmes to meet periodically to study developments in the field of interchange and non-permanent appointments abroad and to develop plans to meet new problems and requirements.

" The Committee views with particular concern the needs of certain less developed areas of the world, for advanced specialized teaching staff from abroad. It recommends to the Director-General that he assist in the recruitment of suitable personnel in accordance with the capacity of his Organization, and suggests in particular that he :

a) invite Member States to investigate and inform him of their requirements,

b) give wide publicity to the requirements,

c) study the various possibilities of recruiting exchange personnel, and

d) in exceptional cases and when particularly requested to do so, undertake direct recruitment of exchange personnel on behalf of Member States. "

RECOMMENDATION No. 30
TO THE MINISTRIES OF EDUCATION
CONCERNING
THE TEACHING OF HANDICRAFTS
IN SECONDARY SCHOOLS

The International Conference on Public Education,

Convened at Geneva by the United Nations Educational, Scientific and Cultural Organization and the International Bureau of Education, and being assembled on the sixth of July for its thirteenth session, adopts on the twelfth of July, nineteen hundred and fifty, the following recommendation :

The Conference,

Considering that progress in the science of education shows the necessity of developing all the potentialities of children and adolescents in order to obtain a complete and harmonious personality ;

That this is a valid principle for the whole period of an individual's development and not only for the period of primary schooling ;

That educational craft activities are indispensable for correcting the effects of a secondary training which is often too bookish, giving young people a greater sense of reality, turning to account their inner need to be active and helping them to appreciate the value of work with the hands ;

That handicrafts constitute not only a valuable element in the moral, social and aesthetic training of children and adolescents, but also provide the pupils with inexhaustible sources of interest and means of self-expression, and that they help to make instruction concrete and to integrate the various subjects of the curriculum ;

That handicrafts are especially valuable as a means of revealing the aptitudes and other aspects of the adolescent's

personality, and thus of facilitating school and vocational guidance ;

Submits to the Ministries of Education of the various countries the following recommendation :

1) That handicrafts be included wherever possible in the curricula of the different courses, of all secondary schools, as :

a) an obligatory subject in the lower classes,

b) at least an optional subject in the upper classes, and that where it is optional, students be encouraged to take it ;

2) That the time devoted to handicrafts be sufficient to maintain interest, and wherever they constitute a separate subject, the periods be grouped so as to permit a reasonable continuity of work ;

3) That the handicrafts syllabus comprise not only the customary activities (woodwork, metalwork, dressmaking, domestic science, cardboard work, etc.), but also other activities such as bookbinding, weaving, leather work, ceramics, pottery and modelling, and gardening, animal husbandry or agriculture ;

4) That, in selecting the crafts to be offered, due regard be paid to the resources, needs and facilities peculiar to each local, regional and national environment ;

5) That greater opportunity be given to pupils of either sex to engage in crafts hitherto reserved for one sex ;

6) That the teaching methods employed appeal to an adolescent's creative freedom, and give him the opportunity to make complete and useful objects suited to his interests and age, and his individual abilities and educational needs ;

7) That educational handicrafts should not be confused with vocational training, but should not fail to inculcate correct habits of workmanship ;

8) That teachers responsible for handicrafts endeavour to obtain from their pupils work that is not only useful but also beautiful, and thus develop artistic taste ;

9) That handicrafts be treated where appropriate as a group activity, so as to give pupils the experience of working together ;

10) That secondary handicrafts classes should recognize the value of making things useful for the school, or simple materials for the infant or primary school, and thus help to create a relationship and a spirit of co-operation between the different levels of education ;

11) That handicrafts teachers establish close contact with the teachers of other subjects, so as to give concrete support when possible ;

12) That work cards should be published to guide the pupils, and books to inform teachers about the methods of the subject ;

13) That an effort be made to provide every school with an adequately built and equipped workshop and, if possible, with a piece of land for gardening or agriculture ;

14) That the equipment and tools used take account of the age, health and physical capacity of the pupils ;

15) That materials for handicrafts be supplied free, wherever possible ;

16) That the subject be taught by persons qualified pedagogically as well as technically ;

17) That introductory and further training courses be organized periodically to keep teachers of the subject informed of current methods and developments ;

18) That national or international exhibitions, such as the Permanent Exhibition of the International Bureau of Education, be organized, that educational authorities facilitate visits to schools at home or even abroad, and that exchanges of craft work be encouraged between the schools of different countries ;

19) That all secondary teachers should be made aware of the importance and the value of handicrafts and of the help that can be derived from them in teaching general subjects ;

20) That teachers of handicrafts be encouraged to form associations with a view to the organisation of introductory and refresher courses and to the steady improvement of the teaching of the subject.

RECOMMENDATION No. 31
TO THE MINISTRIES OF EDUCATION
CONCERNING
INTRODUCTION TO MATHEMATICS IN PRIMARY SCHOOLS
(up to the age of 11 or 12 years)

The International Conference on Public Education,

Convened at Geneva by the United Nations Educational, Scientific and Cultural Organization and the International Bureau of Education, and being assembled on the sixth of July for its thirteenth session, adopts on the thirteenth of July, nineteen hundred and fifty, the following recommendation :

The Conference,

Considering that on the one hand, an introduction to mathematics is one of the essential and universal aspects of training in objective and accurate judgment,

That, on the other hand, the lively activity and the checking of results especially called for by an introduction to mathematics have an intellectual and moral influence which should benefit the study of other subjects,

That a great deal of relevant psychological and educational research is available for use in connection with the teaching of mathematics — one of the most difficult subjects,

Submits to the Ministries of Education in the various countries the following recommendation :

1) That the introduction to mathematics be adapted step by step to the mental processes peculiar to each stage of a child's intellectual development and make full use of all his powers ;

2) That even in the nursery-infant school, a child be given opportunity, through his own activities, to discover the elementary relationships (that the part is contained by the whole, order, similarity, etc.) of number and space ;

3) That a child be enabled to discover for himself, through suitable activities, the meaning of the arithmetical rules and processes to which is he introduced in the first primary classes, and by the same means to find the answers to those questions which his spontaneous interests provoke him to ask ;

4) That, closely linked with a child's growing knowledge of number, a series of graded activities be arranged to introduce some of the simple spatial forms, their relationships and their measurement, in such a way as to show clearly the relation between arithmetic and geometry ;

5) That special care be taken in all the activities which introduce mathematical operations, to secure a thorough grasp of qualitative and logical relationships, because upon these depend a child's subsequent understanding of the logical *structure* and numerical data involved in all his problems ;

6) That in the classes which follow, problems involving new ideas (such as time, speed, etc.) be given after further experience calling in each case for the same kind of practical activity and for the realisation of logical concepts ;

7) That the exercise of a child's imagination through his practical activities be accompanied by a steadily increasing demand that he check his results, so that his conquest of each new system of operations or relationships marks a step forward in the accuracy of his reasoning ;

8) That particular attention be paid to a child's verbal expression of the arithmetical operations he performs, and to the use of the correct vocabulary corresponding to each step learnt ;

9) That exercises for developing the skills of arithmetical computation, especially as regards mental arithmetic, be employed only after a child has learnt the meaning of the operations through play and experiment, and has understood the circumstances in which those skills are required ;

10) That methods involving group activities be used to sustain and increase the children's interest, and to give them opportunity for discussing their problems and checking their results ;

11) That by all means at their disposal, including psychological tests, teachers endeavour systematically to discover where and why their pupils fail, and take steps to overcome the causes of failure in each individual case ;

12) That mathematics be associated as closely as possible with other subjects, and that exercises and problems be taken from everyday life and related to the child's environment, and involve only numbers of reasonable size ;

13) That primary teacher training establishments be invited to endorse the principles set out above and to encourage their students to put them into practice.

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